



CANADA

# AIR NAVIGATION ORDERS

FOURTH EDITION

DEPARTMENT OF TRANSPORT  
CIVIL AVIATION BRANCH





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# **AIR NAVIGATION ORDERS**

**FOURTH EDITION**

**DEPARTMENT OF TRANSPORT  
CIVIL AVIATION BRANCH**





## RECORD OF AMENDMENTS

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# AIR NAVIGATIONS ORDERS BOOK

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THIS REPRINT CONTAINS AMENDMENTS 1 to 19 TO THE ORIGINAL PUBLI-  
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# AIR NAVIGATION ORDERS

## SERIES II

### REGISTRATION, CERTIFICATION AND MARKING

| NUMBER | TITLE   | DATE          | SOR<br>NUMBER |
|--------|---|---------------|---------------|
| No. 1  | Aircraft Nationality and Registration Marks       | Mar. 17, 1965 | 65-117        |
| No. 2  | Aircraft Seats, Safety Belts and Safety Harnesses | May 30, 1966  | 66-260        |
| No. 3  | Flight Permits for Private Aircraft               | Dec. 4, 1962  | 62-476        |
| No. 4  | Airworthiness Certification                       | Dec. 4, 1962  | 62-477        |
| No. 5  | Flying Control Locks                              | Nov. 7, 1957  | 57-463        |
| No. 6  | Flight Instruments and Equipment for Night Flying | May 4, 1965   | 65-192        |
|        | AMENDED   | Apr. 30, 1966 | 66-215        |
| No. 7  | IFR Flight Instruments and Equipment              | May 4, 1965   | 65-193        |
|        | AMENDED   | Apr. 30, 1966 | 66-216        |
| No. 8  | Life-Saving Equipment                             | Oct. 2, 1963  | 63-387        |
| No. 9  | Oxygen Equipment                                  | Mar. 23, 1967 | 67-156        |
| No. 10 | Secondary Surveillance Radar Transponder          | June 30, 1966 | 66-277        |

Amendment No. 19  
15/5/67



AIR NAVIGATION ORDER, SERIES II, NO. 1

AIRCRAFT NATIONALITY AND REGISTRATION MARKS

SHORT TITLE

1. This Order may be cited as the Aircraft Nationality and Registration Marks Order.

INTERPRETATION

2. In this Order,
  - (a) "experiment" has the same meaning as in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air;
  - (b) "heavier-than-air aircraft" means aircraft included in the classification "heavier-than-air aircraft" in the Schedule;
  - (c) "lighter-than-air aircraft" means aircraft included in the classification "lighter-than-air aircraft" in the Schedule; and
  - (d) "marks" means the nationality and registration marks required by section 220 of the Air Regulations to be painted or otherwise affixed to aircraft.

GENERAL

3. The marks shall be painted on Canadian aircraft or affixed by any other means that ensures a similar degree of permanence.
4. The nationality marks shall precede and be separated by a hyphen from the registration marks.
5.
  - (1) The letters of a mark shall be capital letters in Roman characters without ornamentation.
  - (2) The width of each letter of a mark, except the letter I, and the length of the hyphen shall be two-thirds of the height of a letter.
  - (3) The letters and hyphens of a mark shall be formed by solid lines and be of a colour contrasting clearly with the background.
  - (4) The thickness of the lines of a mark shall be one-sixth of the height of a letter.



Series II, No. 1(Cont.)

(5) The letters and hyphens of a mark shall be separated from one another by spaces of not less than one-quarter of the width of a letter.

6. The letters in each separate group of marks shall be of equal height.

HEAVIER-THAN-AIR AIRCRAFT

7. (1) On heavier-than-air aircraft the marks shall be located on  
(a) the wing structure; and  
(b) either  
(i) the fuselage or equivalent structure, or  
(ii) the vertical tail surfaces.

(2) The marks on the wing structure of heavier-than-air aircraft shall be located on the lower surface of the wing structure equidistant, so far as possible, between the leading and trailing edges and with the tops of the letters towards the leading edge.

(3) The marks on the wing structure of heavier-than-air aircraft shall either extend across the whole of the lower surface of the wing structure or be located on the left half of the lower surface of that structure.

(4) Where the marks are located on the fuselage or equivalent structure of heavier-than-air aircraft, they shall be located on both sides thereof between the wings and tail surface.

(5) Where the marks are located on the vertical tail surfaces of heavier-than-air aircraft, they shall be located on the upper halves of the tail surfaces and shall be painted or affixed

- (a) in the case of an aircraft having a single tail surface, on both vertical sides; and  
(b) in the case of an aircraft having a multi-tail surface, on the outboard sides of the outer vertical surfaces.

8. Where a heavier-than-air aircraft does not have parts corresponding to those referred to in section 7, the marks shall be located in such a manner that the aircraft can be readily identified.

9. (1) The height of the marks on the wing structure of heavier-than-air aircraft shall be at least twenty inches.

(2) The marks on the fuselage, or equivalent structure, of heavier-than-air aircraft shall be as large as practicable except that

Series II, No. 1 (Cont.)

- (a) the marks shall not interfere with the visible outlines of the fuselage or equivalent structure; and
  - (b) the marks are not required to be more than six inches in height.
- (3) The marks on the vertical tail surfaces of heavier-than-air aircraft shall be as large as practicable except that
- (a) a margin of at least two inches shall be left along the edge of each vertical tail surface; and
  - (b) the marks are not required to be more than six inches in height.
10. Where a heavier-than-air aircraft does not have parts corresponding to those referred to in section 9, the measurements of the marks shall be such that the aircraft can be readily identified.

EXPERIMENTAL AIRCRAFT

11. Aircraft flown only for experiment shall display the letter "X" following the nationality and registration marks preceded by a hyphen.

LIGHTER-THAN-AIR AIRCRAFT

- 12.
- (a) lengthwise on each side of the hull and on the upper surface of the hull on the line of symmetry; or
  - (b) on the horizontal and vertical stabilizers in which case
    - (i) the marks on the horizontal stabilizers shall be located on the right half of the upper surface and on the left half of the lower surface with the tops of the letters toward the leading edge, and
    - (ii) the marks on the vertical stabilizer shall be located on each side of the bottom half stabilizer with the letters placed horizontally.
- (2) On a spherical balloon the marks shall be located in two diametrically opposite places near the maximum horizontal circumference of the balloon.
- (3) On a non-spherical balloon the marks shall be located on each side near the maximum cross-section of the balloon immediately above either the rigging band or the points of attachment of the basket suspension cables.
13. On all lighter-than-air aircraft the side marks shall be visible both from the sides and from the ground.

14. The height of the marks on lighter-than-air aircraft shall be at least twenty inches.

SCHEDULE - CLASSIFICATION OF AIRCRAFT

|                              |                          |                 |  |
|------------------------------|--------------------------|-----------------|--|
| 1. Lighter-than-air aircraft | Non-power driven balloon | Free balloon    | { Spherical free balloon<br>Non-spherical free balloon         |
|                              |                          | Captive balloon | { Spherical captive balloon<br>Non-spherical captive balloon * |
|                              | Power-driven             | { Airship       | { Rigid airship<br>Semi-rigid airship<br>Non-rigid airship     |
|                              |                          |                 |  |

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|                              |                  |             |  |
|------------------------------|------------------|-------------|--|
| 2. Heavier-than-air aircraft | Non-power driven | Glider      | { Land glider<br>Sea glider +  |
|                              |                  | Kite ★      |  |
|                              | Power-driven     | Aeroplane   | { Landplane ‡<br>Seaplane +<br>Amphibian +                           |
|                              |                  |             |  |
|                              |                  |             |  |
|                              |                  | Gyroplane   | { Land gyroplane ‡<br>Sea gyroplane +<br>Amphibian gyroplane +       |
|                              |                  |             |  |
|                              |                  | Helicopter  | { Land helicopter ‡<br>Sea helicopter +<br>Amphibian helicopter +    |
|                              |                  |             |  |
|                              |                  | Ornithopter | { Land ornithopter ‡<br>Sea ornithopter +<br>Amphibian ornithopter + |

\* Generally designated "kite-balloon".

+ "Float" or "boat" may be added as appropriate.

‡ Includes aircraft equipped with ski-type landing gear (substitute "ski" or "land").

★ For the purpose of completeness only.

AIR NAVIGATION ORDER, SERIES II, NO. 2

AIRCRAFT SEATS, SAFETY BELTS AND  
SAFETY HARNESSES ORDER

1. This Order may be cited as the Aircraft Seats, Safety Belts and Safety Harnesses Order.
2. In this Order,
  - (a) "infant" means a person under three years of age; and
  - (b) "special purpose operation" means an operation in which an aircraft is flown for the purpose of spraying, dusting, seeding, or pipeline or powerline patrolling, and includes any other operation of a similar nature.
3. (1) Except as provided in this Order, no person shall fly an aircraft that is not equipped with a seat and an individual safety belt or safety harness for each person in the aircraft, other than infants.  
  
(2) No person shall fly an aircraft on a special purpose operation unless it is equipped with a seat and an individual safety harness for each person in the aircraft.
4. Subsection (1) of section 3 does not apply to a person flying an aircraft equipped with a safety belt or safety harness that two persons can share if it is used on a seat designed to accommodate two persons.
5. (1) An aircraft
  - (a) having a gross weight not exceeding 12,500 pounds and engaged in a non-scheduled commercial air service with a combined load of passengers and freight, or
  - (b) engaged in the activity of dropping parachutists,may be flown without providing seats for the passengers or parachutists if it is equipped with safety belts or safety harnesses of a type that may be secured to the primary structure of the aircraft and that have been approved by the Director, Civil Aviation.  
  
(2) Where seats are not provided for passengers or parachutists in an aircraft described in subsection (1), the pilot-in-command of the aircraft shall ensure that the safety belts or safety harnesses to be used by the

passengers or parachutists are secured to the primary structure of the aircraft.

6. (1) Every person in an aircraft, except an infant, shall keep his safety belt or safety harness fastened while the aircraft is taking off and landing and at any other time when so directed by a member of the crew or by a sign displayed in the aircraft.

(2) Every person in charge of an infant shall ensure that the infant is held securely in the arms of an adult at such times as safety belts or safety harnesses are required to be fastened, but the safety belt or safety harness shall not be fastened about both the adult person holding the infant and the infant.

7. The pilot-in-command of an aircraft shall at all times while the aircraft is in flight remain in his seat with his safety belt or safety harness fastened unless another pilot qualified for that aircraft type is occupying a pilot's seat with his safety belt or safety harness fastened.



AIR NAVIGATION ORDER, SERIES II, No. 3

FLIGHT PERMITS FOR PRIVATE AIRCRAFT ORDER

1. This Order may be cited as the Flight Permits for Private Aircraft Order.
2. In this Order,
  - (a) "air time" in respect of any aircraft, means the period of time commencing when the aircraft leaves the surface of the earth and terminating when the aircraft touches the surface of the earth at the next point of landing;
  - (b) "qualified" in respect of an aircraft maintenance engineer, means holding an aircraft maintenance engineer licence appropriate to the duties being performed; and
  - (c) "ultra-light" with reference to an aircraft, means an aeroplane or rotary wing aircraft other than a helicopter designated as an ultra-light aircraft by the Minister.
3. A flight permit shall only be issued in respect of
  - (a) an aeroplane that is of a type for which a certificate of airworthiness may be issued pursuant to subsection (2) of section 211 of the Air Regulations and has a maximum gross weight not in excess of 8,000 pounds;
  - (b) an aeroplane that is of a type that has been accepted for use as a military aeroplane by Canada, the United Kingdom or the United States of America and has been approved by the Assistant Deputy Minister, Air;
  - (c) an aeroplane formerly used in the military service of the United Kingdom or the United States of America and has been issued with a certificate of airworthiness in either one of these countries;
  - (d) an aeroplane that has been approved by the Assistant Deputy Minister, Air; or
  - (e) an ultra-light aircraft.
4. No person shall fly a private aircraft under the authority of a flight permit unless
  - (a) the flight permit is prominently displayed in the aircraft where it can be readily seen by passengers entering the aircraft; and
  - (b) the words "Notice: This aircraft is operating without a certificate of airworthiness", in letters at least three-eighths of an inch high and of a colour contrasting with their background, are displayed on the side of the fuselage in a position where they may readily be seen by persons entering the aircraft.

5. A flight permit is not in force in respect of a private aeroplane of a maximum permissible gross weight of 31,000 pounds or over at the time of any flight unless the aeroplane has

- (a) been maintained in a serviceable condition in accordance with the instructions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air, for the servicing, maintenance, repair and overhaul of aeroplanes; and
- (b) been certified as serviceable in the Journey and Aircraft Log during the twenty-five hours of air time preceding the flight or during the ninety days preceding the flight, whichever period is the first to expire, by a qualified aircraft maintenance engineer or by an authorized representative of a company which company has been approved by the Assistant Deputy Minister, Air, for the purpose of inspecting and certifying the airworthiness of aircraft.

6. A flight permit is not in force in respect of a private aeroplane of a maximum permissible gross weight in excess of 8,000 pounds and less than 31,000 pounds at the time of any flight unless the aeroplane has

- (a) been maintained in a serviceable condition in accordance with the instructions set forth in the engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air, for the servicing, maintenance, repair and overhaul of aeroplanes; and
- (b) been certified as serviceable in the Journey and Aircraft Log during the fifty hours of air time preceding the flight or during the six months preceding the flight, whichever period is the first to expire, by a qualified aircraft maintenance engineer or by an authorized representative of a company which company has been approved by the Assistant Deputy Minister, Air, for the purpose of inspecting and certifying the airworthiness of aircraft.

7. A flight permit issued in respect of a private aeroplane of a maximum permissible gross weight of 8,000 pounds or less other than a private aeroplane designated as an ultra-light aeroplane is not in force at the time of any flight unless the aeroplane has

- (a) been maintained in a serviceable condition in accordance with the instructions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air, for the servicing, maintenance, repair and overhaul of aeroplanes; and
- (b) been certified as serviceable in the Journey and Aircraft Log during the one hundred hours of air time preceding the flight or during the twelve months preceding the flight, whichever period is the first to expire, by a qualified aircraft maintenance engineer or by an authorized representative of a company which company has

been approved by the Assistant Deputy Minister, Air for the purpose of inspecting and certifying the airworthiness of aircraft.

8. A flight permit is not in force in respect of an ultra-light aircraft at the time of any flight unless the ultra-light aircraft has been maintained in a serviceable condition.

9. No certificate of airworthiness shall be issued for an aircraft in respect of which a flight permit has been issued except in accordance with such terms and conditions as the Assistant Deputy Minister, Air, may prescribe.

10. A flight permit is not in force in respect of any aircraft

- (a) during any period of major repairs or major modifications to that aircraft,
- (b) during any period when major repairs or modifications are required or necessary to that aircraft, or
- (c) under such other circumstances as may be specified by the Assistant Deputy Minister, Air,

and, except in the case of an ultra-light aircraft, a flight permit does not come into force in respect of such aircraft except after inspection and certification of the aircraft in accordance with the directions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air.

11. The Assistant Deputy Minister, Air, may designate any officer of the Department of Transport to act on his behalf in respect of this Order.

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AIR NAVIGATION ORDER, SERIES II, No. 4

AIRWORTHINESS CERTIFICATION ORDER

1. This Order may be cited as the Airworthiness Certification Order.

2. In this Order,

- (a) "air time" in respect of any aircraft, means the period of time commencing when the aircraft leaves the surface of the earth and terminating when the aircraft touches the surface of the earth at the next point of landing; and
- (b) "qualified" in respect of an aircraft maintenance engineer, means holding an aircraft maintenance engineer licence appropriate to the duties being performed.

COMMERCIAL AIRCRAFT

3. A certificate of airworthiness is not in force in respect of an aircraft used for the purpose of a scheduled commercial air service at the time of any flight unless the aircraft has

- (a) been maintained in an airworthy condition and a system of inspection and maintenance approved by the Assistant Deputy Minister, Air, has been followed; or
- (b) in the absence of an approved system described in paragraph (a), been maintained in an airworthy condition and inspected and certified as airworthy in the Journey and Aircraft Log within twenty-four hours prior to the time of the flight by a qualified aircraft maintenance engineer or by an authorized representative of a company which company has been approved by the Assistant Deputy Minister, Air, for the purpose of inspecting and certifying the airworthiness of aircraft.

4. A certificate of airworthiness is not in force in respect of a commercial aircraft of a maximum permissible gross weight of 12,500 pounds or over used for any purpose other than a scheduled commercial air service at the time of any flight unless the aircraft has

- (a) been maintained in an airworthy condition and a system of inspection and maintenance approved by the Assistant Deputy Minister Air, has been followed; or
- (b) in the absence of an approved system described in paragraph (a), been maintained in an airworthy condition and inspected and certified as airworthy in the Journey and Aircraft Log during the



twenty-five hours of air time preceding the flight or the seven days preceding the flight, whichever period is the first to expire, by a qualified aircraft maintenance engineer or by an authorized representative of a company which company has been approved by the Assistant Deputy Minister, Air, for the purpose of inspecting and certifying the airworthiness of aircraft.

5. A certificate of airworthiness is not in force in respect of a commercial aircraft of a maximum permissible gross weight of less than 12,500 pounds used for any purpose other than a scheduled commercial air service at the time of any flight unless the aircraft has

- (a) been maintained in an airworthy condition in accordance with the instructions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air, for the servicing, maintenance, repair and overhaul of the aircraft; and
- (b) been certified as airworthy in the Journey and Aircraft Log during the fifty hours of air time preceding the flight or during the thirty days preceding the flight, whichever period is the first to expire, by a qualified aircraft maintenance engineer or by an authorized representative of a company which company has been approved by the Assistant Deputy Minister, Air, for the purpose of inspecting and certifying the airworthiness of aircraft.

#### PRIVATE AIRCRAFT

6. A certificate of airworthiness is not in force in respect of a private aircraft of a maximum permissible gross weight of 31,000 pounds or over at the time of any flight unless the aircraft has

- (a) been maintained in an airworthy condition in accordance with the instructions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air, for the servicing, maintenance, repair and overhaul of the aircraft; and
- (b) been certified as airworthy in the Journey and Aircraft Log during the twenty-five hours of air time preceding the flight or the ninety days preceding the flight, whichever period is the first to expire, by a qualified aircraft maintenance engineer or by an authorized representative of a company which company has been approved by the Assistant Deputy Minister, Air, for the purpose of inspecting and certifying the airworthiness of aircraft.

7. A certificate of airworthiness is not in force in respect of a private aircraft of a maximum permissible gross weight in excess of 8,000 pounds and less than 31,000 pounds at the time of any flight unless the aircraft has

- (a) been maintained in an airworthy condition in accordance with the instructions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air, for the servicing, maintenance, repair and overhaul of the aircraft; and
- (b) been certified as airworthy in the Journey and Aircraft Log during the fifty hours of air time preceding the flight, or, during the six months preceding the flight, whichever period is the first to expire, by a qualified aircraft maintenance engineer or by an authorized representative of a company which company has been approved by the Assistant Deputy Minister, Air, for the purpose of inspecting and certifying the airworthiness of aircraft.

8. A certificate of airworthiness is not in force in respect of a private aircraft of a maximum permissible gross weight of 8,000 pounds or less at the time of any flight unless the aircraft has

- (a) been maintained in an airworthy condition in accordance with the instructions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air, for the servicing, maintenance, repair and overhaul of the aircraft; and
- (b) been certified as airworthy in the Journey and Aircraft Log during the one hundred hours of air time preceding the flight, or during the twelve months preceding the flight, whichever period is the first to expire, by a qualified aircraft maintenance engineer, or by an authorized representative of a company which company has been approved by the Assistant Deputy Minister, Air, for the purpose of inspecting and certifying the airworthiness of aircraft.

9. A certificate of airworthiness for an aircraft is not in force in respect of that aircraft

- (a) during any period of major repairs or major modifications to that aircraft,
- (b) during any period when major repairs or major modifications are required or necessary to that aircraft, or
- (c) under such other circumstances as may be specified by the Assistant Deputy Minister, Air,

and a certificate of airworthiness does not come into force in respect of such aircraft except after inspection and certification of the aircraft in accordance with any directions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air.

10. The Assistant Deputy Minister, Air, may designate any officer of the Department of Transport to act on his behalf in respect of this Order.

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AIR NAVIGATION ORDER, SERIES II, No. 5

FLYING CONTROL LOCKS

1. No person shall apply an external flying control lock to the control surfaces of an aircraft while it is on the ground or on water unless
  - (a) it is so designed and constructed to give unmistakable indication to the pilot-in-command in the cockpit of the aircraft that it is engaged, and
  - (b) it is so coloured or marked as to be clearly visible from the ground or water.
2. No person shall use a control lock which is applied to the flying controls in the cockpit of an aircraft on the ground unless it is so designed and constructed to give unmistakable indications to the pilot-in-command that it is engaged.
3. No aircraft shall be equipped with a control lock that is capable of becoming engaged while the aircraft is in flight.
4. The pilot-in-command of the aircraft is responsible for the removal of all flying control locks before flight.

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SOR/66-215  
Made on  
April 30, 1966

SOR/65-192  
Made on  
May 4, 1965

AIR NAVIGATION ORDER, SERIES II, NO. 6

FLIGHT INSTRUMENTS AND EQUIPMENT FOR NIGHT FLYING

1. This Order may be cited as the Night Flying Equipment Order.
2. In this Order "area of compass unreliability" means the area bounded by a line beginning at the North Geographic Pole; thence to Latitude 69°00' North, Longitude 141° West; thence to Churchill, Manitoba, Radio Range Station; thence to Latitude 66° North, Longitude 64° West; thence to Latitude 74° North, Longitude 68°18' West; thence to Latitude 76° North, Longitude 76° West; thence to Latitude 78° North, Longitude 75° West; thence to Latitude 82° North, Longitude 60° West; thence to the point of beginning.
3. No person shall operate an aircraft at night unless it is equipped with the following instruments and equipment in serviceable condition:
  - (a) an airspeed indicator;
  - (b) a sensitive pressure altimeter;
  - (c) a direct reading magnetic compass;
  - (d) a turn and bank indicator;
  - (e) if operated not within sight of the aerodrome of departure, a gyroscopic direction indicator or gyro-magnetic compass; and
  - (f) unless another timepiece is readily available to all flight crew members, a reliable timepiece with a sweep second hand.
4. No person shall operate an aircraft at night within the area of compass unreliability unless it is equipped with a gyroscopic direction indicator and a means of establishing direction that is not dependent on a magnetic source.
5. No person shall operate an aircraft at night within controlled airspace but out of sight of the aerodrome of departure unless it is equipped with serviceable radio apparatus adequate to permit two-way communication with the appropriate air traffic control unit.

Amendment No. 17  
24/8/66



Series II, No. 7 (cont.)

- (i) two Automatic Direction Finding Radio Compasses;
- (ii) one Automatic Direction Finder Radio Compass and one VOR/ILS Receiver;
- (iii) one Low/Medium Frequency Range Receiver and one Automatic Direction Finding Radio Compass;
- (iv) one Low Frequency Range Receiver and one VOR/ILS Receiver; or
- (v) two Low/Medium Frequency Range Receivers.

6. No person shall operate an aircraft in IFR flight elsewhere than within controlled airspace unless it is equipped with serviceable radio equipment adequate to navigate safely within the area in which the flight is to be made and which equipment shall include an automatic direction finding radio compass.

7. No person shall operate an aircraft in IFR flight in areas where icing conditions are reported to exist or are expected to be encountered unless the engines, propellers and airframe are suitably protected against icing.

AIR NAVIGATION ORDER, SERIES II, No. 8

LIFE-SAVING EQUIPMENT ORDER

1. This Order may be cited as the Life-Saving Equipment Order.
2. In this Order,
  - (a) "approved" in relation to a life-jacket or any equivalent individual flotation device means that the type of life-jacket or equivalent flotation device, as the case may be, has been approved by the Director, Civil Aviation, or by a person designated by him for such purpose;
  - (b) "landplane" means an aircraft other than a seaplane;
  - (c) "seaplane" means an aircraft capable of landing on or taking off from water; and
  - (d) "shore" includes any shorebound ice that affords a safe landing area.
3. No person shall fly a seaplane on any flight during which it is intended to take off from or land on water unless the seaplane is equipped with:
  - (a) one readily accessible approved life-jacket or approved equivalent individual flotation device suitable for each person on board, including infants-in-arms; and
  - (b) a number of approved life-jackets or approved equivalent individual flotation devices in addition to those referred to in paragraph (a) equal to not less than one-fifth the number of persons on board and stowed in readily accessible positions near the exits.
4. Except during a take-off, initial climb or approach to land, no person shall fly
  - (a) a single-engined landplane over water beyond gliding distance from shore;
  - (b) a multi-engined landplane that is unable to maintain flight on the failure of any one engine beyond gliding distance from shore; or
  - (c) a multi-engined landplane, other than the one referred to in paragraph (b), over water at a distance from shore greater than the distance that can be covered in thirty minutes at the cruising speed selected for the flight,unless the landplane is equipped with one readily accessible approved life-jacket or approved equivalent individual flotation device suitable for each person on board, including infants-in-arms.

Series II, No. 8 (cont.)

5. Except as provided in section 6, no person shall fly an aircraft over water at a distance from land suitable for making an emergency landing greater than

- (a) the distance that can be covered in ninety minutes at the cruising speed selected for the flight; or
- (b) three hundred nautical miles

whichever is the lesser, unless the aircraft is equipped in accordance with Schedule "A".

6. An aircraft that is not equipped in accordance with Schedule "A" may be flown at a distance from land suitable for making an emergency landing in excess of the distances specified in section 5 but not in excess of

- (a) the distance that can be covered in one hundred and twenty minutes at the cruising speed selected for the flight; or
- (b) four hundred nautical miles

whichever is the lesser, if the aircraft

- (c) is equipped with a readily accessible approved life-jacket or approved equivalent individual flotation device suitable for each person on board, including infants-in-arms,
- (d) is, in the event of any one engine becoming inoperative, capable of continuing to a suitable aerodrome from any point along the route and of a rate of climb of 100 feet per minute at an altitude of not less than 1500 feet above such aerodrome, and
- (e) is, in the event of any two engines becoming inoperative, capable of continuing to a suitable aerodrome from any point along the route.

7. Every operator of an aircraft shall be responsible for ensuring that all life-preserving equipment is maintained in a serviceable condition.

8. (1) Notwithstanding the provisions of this Order and unless authorized by the Minister,

- (a) no single-engined landplane shall be operated on a commercial air service over water beyond gliding distance from shore, and
- (b) no flight shall be commenced in any single-engined aircraft with intent that the flight should be a transoceanic flight.

(2) Multi-engined landplanes unable to maintain flight in the event of failure of the critical engine shall for the purpose of this section be deemed to be single-engined landplanes.

"Schedule A

EQUIPMENT FOR EXTENDED OVER-WATER FLIGHTS

1. A readily accessible portable self-buoyant and water resistant radio transmitter capable of transmitting on an appropriate distress frequency or frequencies.
2. A readily accessible water resistant pyrotechnical signalling device capable of displaying the signals described in the Distress, Urgency and Safety Signals Order (Air Navigation Order, Series V, No. 6).
3. A means of electrical illumination for the purpose of facilitating the location of persons in the water to be attached as part of the approved life jacket or approved equivalent individual flotation device.
4. Life rafts, sufficient in number to accommodate all persons on board, stowed so as to facilitate their ready use in an emergency and each fitted with,
  - (a) for each person carried, two days' supply of concentrated food or its equivalent, that is of high nutritive value, to be contained in a waterproof package;
  - (b) one canopy suitable for use as a sail, sunshade or raincatcher;
  - (c) one repair kit adequate to repair the life raft;
  - (d) one bailing bucket;
  - (e) one signalling mirror;
  - (f) one police whistle;
  - (g) one knife;
  - (h) one CO<sub>2</sub> bottle for emergency inflation of the life raft;
  - (i) one pump adequate to maintain the life raft in an inflated condition;
  - (j) two oars or paddles;
  - (k) one seventy-five foot retaining line;
  - (l) a means of desalting seawater in sufficient quantity for each person carried, or two pints of water for each person carried;
  - (m) one fishing kit;
  - (n) one book on survival appropriate to the area in which the flight is undertaken;
  - (o) one water resistant torch;
  - (p) one sea anchor and line; and
  - (q) one first aid kit."



AIR NAVIGATION ORDER, SERIES II, NO. 9.

Oxygen Equipment Order.

Short Title

1. This Order may be cited as the Oxygen Equipment Order.

Interpretation.

2. In this Order,
  - (a) "cabin pressure altitude" means the pressure altitude in the cabin of an aircraft;
  - (b) "pressurized aircraft" means an aircraft the pressure in the cabin of which is controlled by mechanical means;
  - (c) "protective breathing equipment" means equipment to cover the eyes, nose and mouth, or the nose and mouth if accessory equipment is provided to protect the eyes, that will protect the wearer from the effects of smoke, carbon dioxide or other harmful gases; and
  - (d) "quick-donning mask" means an oxygen mask that can be secured on the face of the wearer with one hand within five seconds and that provides an immediate supply of oxygen.

General

3. The oxygen and protective breathing equipment required by this Order shall be of a kind approved by the Director, Civil Aviation, or by a person designated by him for that purpose.

Flight Crew Members

4. No person shall fly an aircraft
  - (a) for more than thirty minutes at an altitude between 10,000 and 13,000 feet above Mean Sea Level, or
  - (b) at an altitude above 13,000 feet above Mean Sea Level,unless there is readily available to each flight crew member, an oxygen mask and a supply of oxygen sufficient for two hours or for the duration of the flight at cabin pressure altitudes above 10,000 feet, whichever is the greater period.

5. No person shall fly an aircraft
- (a) for more than thirty minutes at a cabin pressure altitude between 10,000 and 13,000 feet above Mean Sea Level, or
  - (b) at a cabin pressure altitude above 13,000 feet above Mean Sea Level,

unless each flight crew member on duty is continuously wearing and using an oxygen mask supplying oxygen.

6. No person shall fly an aircraft,
- (a) in the case of an aircraft equipped with a quick-donning mask for each flight crew member on duty at his flight duty station, at an altitude above flight level 410, or
  - (b) in the case of any other aircraft, at an altitude above flight level 250,

unless one pilot at the controls is continuously wearing and using a secured and sealed oxygen mask supplying oxygen.

7. Notwithstanding section 6, where for any reason it is necessary for one pilot to leave his station at the controls during flight at an altitude above flight level 250, the remaining pilot shall put on and continuously use his oxygen mask until the other pilot has returned to his duty station.

#### Passengers

8. (1) No person shall fly an aircraft,
- (a) for more than thirty minutes at an altitude between 10,000 and 13,000 feet above Mean Sea Level unless there is readily available to ten per cent of the passengers and in no case less than one passenger, oxygen masks and a supply of oxygen sufficient for the duration of the flight at such an altitude,
  - (b) at an altitude above 13,000 feet above Mean Sea Level, unless there is readily available
    - (i) in the case of an unpressurized aircraft, an oxygen mask for each passenger and a supply of oxygen sufficient for one hour or for the duration of the flight at such an altitude, whichever is the greater period,
    - (ii) in the case of a pressurized aircraft operated at or below flight level 250, oxygen masks and a supply of oxygen sufficient for at least ten per cent of the passengers for one-half hour if the aircraft can at any time during the flight safely descend within four minutes to 14,000 feet above Mean Sea Level, or

Amendment No. 19

15/5/67



- (iii) in the case of a pressurized aircraft operated above flight level 250, or a pressurized aircraft operated at or below flight level 250 that cannot safely descend within four minutes to 14,000 feet above Mean Sea Level, an oxygen mask for each passenger and a supply of oxygen sufficient for at least ten per cent of the passengers for the entire flight following cabin pressurization failure at resulting cabin pressure altitudes between 10,000 and 13,000 feet and a supply of oxygen for all passengers at resulting cabin pressure altitudes above 13,000 feet.

(2) Notwithstanding subparagraph (iii) of paragraph (b) of subsection (1), an aircraft referred to in that subparagraph shall have readily available for each passenger a supply of oxygen sufficient for ten minutes.

(3) For the purpose of this section, cabin pressurization failure shall be deemed to occur at the altitude or time of flight at which oxygen is required most.

9. No person shall fly an aircraft at a cabin pressure altitude above 15,000 feet above Mean Sea Level unless each passenger is continuously wearing and using an oxygen mask supplying oxygen.

10. No person shall fly an aircraft at an altitude above flight level 250 unless a crew member has instructed the passengers in regard to the location, operation and necessity for using the oxygen equipment.

#### First Aid Oxygen and Protective Breathing Equipment for Commercial Operations.

11. (1) No person shall fly a pressurized aircraft in a commercial air service unless there is readily available to each flight crew member on duty at his station protective breathing equipment.

(2) For the purposes of subsection (1), there shall be at least a 300-liter dry supply of oxygen, at a standard temperature of 0° Centigrade at a standard pressure of 760 millimeters of mercury for each flight crew member on duty.

12. No person shall fly a pressurized aircraft at an altitude above flight level 250 in a commercial air service unless

- (a) there is readily available to each cabin attendant portable oxygen equipment with a fifteen-minute minimum supply of oxygen; or

- (b) sufficient portable oxygen units with masks or spare outlets and masks are distributed throughout the cabin so as to ensure an immediate supply of oxygen to each cabin attendant.

13. No person shall fly a pressurized aircraft at an altitude above 10,000 feet above Mean Sea Level in a commercial air service unless there is readily available a supply of undiluted first aid oxygen sufficient to provide two per cent of the occupants, and in no case less than one person, with undiluted oxygen for one hour or for the duration of the flight at such an altitude, whichever is the greater period.

AIR NAVIGATION ORDER, SERIES II, NO. 10

SECONDARY SURVEILLANCE RADAR TRANSPONDER ORDER

1. This Order may be cited as the Secondary Surveillance Radar Transponder Order.
2. In this Order, "coded transponder" means a secondary surveillance radar transponder that has a Mode A 64 code capability and conforms to Department of Transport Radio Standards Specification 148.
3. Subject to sections 4 and 5, no person shall operate an aircraft within controlled airspace above flight level 230 unless
  - (a) the aircraft is equipped with a serviceable coded transponder; and
  - (b) the coded transponder is
    - (i) operated as directed by the appropriate air traffic control unit, or
    - (ii) where no such direction is given, adjusted so as to reply to Mode A interrogation with Code 21.
4. Where a coded transponder fails during flight, the pilot in charge of the aircraft may
  - (a) continue to operate the aircraft above flight level 230 to the next airport of intended landing; and
  - (b) if so authorized by the air traffic control unit at each airport of landing, continue to operate the aircraft above flight level 230 without a serviceable coded transponder.
5. An air traffic control unit may, on receipt of a written request, authorize an aircraft that is not equipped with a serviceable coded transponder to be operated within controlled airspace under its jurisdiction above flight level 230 subject to such conditions and limitations as may be deemed necessary for the safety of air traffic and thereupon the aircraft may be operated as so authorized.
6. No person shall operate an aircraft at or below flight level 230 equipped with a coded transponder replying to Mode A interrogation unless that coded transponder is
  - (a) operated as directed by the appropriate air traffic control unit; or
  - (b) where no such direction is given, adjusted so as to reply to Mode A interrogation with Code 06.

Series II. No. 10 (cont.)

7. Notwithstanding sections 3 and 6, a coded transponder may, at any time, be adjusted to reply to Mode A interrogation with

- (a) Code 76, to indicate a communication failure; or
- (b) Code 77, to indicate an in-flight emergency.

NOTE: This Order comes into force at 0001 G. M. T. October 1, 1966.

Amendment No. 16  
30/6/66

AIR NAVIGATION ORDERS

SERIES III

AERODROMES

| NUMBER | TITLE                                | DATE          | SOR<br>NUMBER |
|--------|--------------------------------------|---------------|---------------|
| No. 1  | Aerodromes, Unlicensed,<br>Markings. | Dec. 31, 1954 | 54-746        |



AIR NAVIGATION ORDER, SERIES III, No. 1

AERODROMES, UNLICENSED, MARKINGS

When markings are placed on any area of land or water that may be used as an aerodrome but has not been licensed, they shall be as follows:

- (a) the wind cone shall be coloured international orange only,
- (b) boundary markers shall be coloured international orange only or, in winter, may be evergreen trees or boughs; and
- (c) unserviceable areas shall be marked with red flags.

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# AIR NAVIGATION ORDERS

## SERIES IV

### PERSONNEL LICENSING

| NUMBER | TITLE  | DATE          | SOR<br>NUMBER |
|--------|--|---------------|---------------|
| No. 1  | Personnel Licences   | Oct. 12, 1965 | 65-482        |
|        | AMENDED  | May 11, 1966  | 66-233        |
|        | AMENDED  | Jan. 25, 1967 | 67-77         |
| No. 2  | Privileges Attaching to<br>Pilot Licences                          | Oct. 12, 1965 | 65-483        |
| No. 3  | REVOKED  |               |               |
| No. 4  | REVOKED  |               |               |
| No. 5  | REVOKED  |               |               |
| No. 6  | Privileges Attaching to Aircraft<br>Maintenance Engineers Licences | Apr. 24, 1963 | 63-148        |

Amendment No. 19  
15/5/67



AIR NAVIGATION ORDER, SERIES IV, NO. 1

PERSONNEL LICENCES

1. This Order may be cited as the Personnel Licences Order.

2. (1) The following classes of licences and permits may be issued in respect of the duties and functions that may be discharged by a flight crew member of an aircraft:

- (a) student free balloon pilot permit;
- (b) student glider pilot permit;
- (c) student gyroplane pilot permit;
- (d) student pilot permit;
- (e) free balloon pilot licence;
- (f) glider pilot licence;
- (g) gyroplane pilot licence;
- (h) private pilot permit (tourist);
- (i) private pilot licence;
- (j) flight engineer licence;
- (k) commercial pilot licence;
- (l) senior commercial pilot licence;
- (m) flight navigator licence; and
- (n) airline transport pilot licence.

(2) The following classes of licences may be issued in respect of the duties and functions to be discharged by persons other than flight crew members of an aircraft:

- (a) aircraft maintenance engineer licence; and
- (b) air traffic controller licence.

3. No person shall act as

- (a) pilot, flight navigator or flight engineer of an aircraft;
- (b) aircraft maintenance engineer; or
- (c) air traffic controller

unless

- (d) he holds a valid and subsisting licence or permit issued under Part IV of the Air Regulations authorizing him to discharge that function, and he complies with
  - (i) the privileges of that licence or permit as set forth in any applicable Air Navigation Order made under the Air Regulations, and
  - (ii) any restrictions endorsed on his licence or permit.



AIR NAVIGATION ORDER SERIES IV NO. 2  
PRIVILEGES ATTACHING TO PILOT LICENCES ORDER

1. This Order may be cited as the Pilot Licence Privileges Order.
2. In this Order "licensee" means the holder of a valid and subsisting pilot licence or permit issued under Part IV of the Air Regulations.

GENERAL

3. A licensee, being the holder of other than a Commercial, Senior Commercial or Airline Transport Pilot Licence shall not, except as provided in the Private Aircraft Exemption Order (Air Navigation Order, Series VII, No. 1), accept remuneration for his services as a pilot or act as a pilot to enable the provision of a commercial air service.
4. A licensee who holds a valid and subsisting Instrument Rating may, subject to the restrictions of that rating, exercise the privileges attaching to his licence under the instrument flight rules.

PRIVATE PILOT PRIVILEGES

5. A licensee, being the holder of a valid and subsisting Private Pilot Licence may
  - (a) by day
    - (i) act as pilot-in-command or co-pilot of any aircraft if it is of a category, class and type endorsed on his licence, and
    - (ii) act as pilot-in-command or co-pilot of any aircraft if no passengers are carried; and
  - (b) by night
    - (i) act as pilot-in-command or co-pilot of any aircraft if
      - (A) he has completed no less than five take-offs and landings by night in the same category and class of aircraft during the six months immediately preceding the flight; and
      - (B) the aircraft is of a category, class and type endorsed on his licence and the licence has been endorsed for night flying; and
    - (iii) act as pilot-in-command or co-pilot of any aircraft if no passengers are carried and
      - (A) the flight is under the supervision of a qualified flying instructor,
      - (B) the licensee has completed at least two hours dual night flying instruction, or
      - (C) his licence has been endorsed for night flying.

## COMMERCIAL PILOT PRIVILEGES

6. (1) A licensee, being the holder of a Commercial Pilot Licence, shall, before carrying passengers by night, have completed no less than five take-offs and landings by night in the same category and class of aircraft during the six months immediately preceding the flight.

(2) A licensee, being the holder of a valid and subsisting Commercial Pilot Licence, may

- (a) exercise the privileges set out in section 5;
- (b) act as pilot-in-command of any aeroplane engaged in a commercial air service if the aeroplane is of a class and type endorsed on his licence and does not exceed 12,500 pounds gross allowable weight for take-off;
- (c) act as pilot-in-command of any aeroplane engaged in a commercial air service if the aeroplane is of a class and type endorsed on his licence and passengers are not carried for remuneration;
- (d) act as pilot-in-command of any aircraft other than an aeroplane engaged in a commercial air service if the aircraft is of a category and type endorsed on his licence;
- (e) act as pilot-in-command of any aircraft if it is not engaged in a commercial air service and it is of a category, class and type endorsed on his licence;
- (f) act as pilot-in-command or co-pilot of any aircraft if it is not engaged in a commercial air service and passengers are not carried; and
- (g) act as co-pilot of any aircraft if it is of a category, class and type endorsed on his licence.

## SENIOR COMMERCIAL PILOT PRIVILEGES

7. A licensee, being the holder of a valid and subsisting Senior Commercial Pilot Licence, may

- (a) exercise the privileges set out in sections 5 and 6; and
- (b) act as pilot-in-command of any aeroplane engaged in a commercial air service if the aeroplane is of a class and type endorsed on his licence and does not exceed 44,000 pounds gross allowable weight for take-off.

## AIRLINE TRANSPORT PILOT PRIVILEGES

8. A licensee, being the holder of a valid and subsisting Airline Transport Pilot Licence, may

- (a) exercise the privileges set out in sections 5, 6 and 7; and
- (b) act as pilot-in-command of any aeroplane engaged in a commercial air service if the aeroplane is of a class and type endorsed on his licence and he holds a valid and subsisting Class I Instrument Rating.

AIR NAVIGATION ORDER, SERIES IV, No. 6

PRIVILEGES ATTACHING TO AIRCRAFT MAINTENANCE ENGINEER  
LICENCES

1. This Order may be cited as the Privileges Attaching to Aircraft Maintenance Engineer Licences Order.
2. In this Order, "licensee" means the holder of an Aircraft Maintenance Engineer Licence issued under the Air Regulations.
3. A licensee may exercise the privileges granted by this Order only after he has inspected the aircraft or aircraft part and complied with all applicable instructions set forth in the Engineering and Inspection Manual issued under the authority of the Assistant Deputy Minister, Air.
4. A licensee whose licence is endorsed under Category "A" may
  - (a) before flight, certify as airworthy or serviceable, any aircraft of a type endorsed on his licence under that Category;
  - (b) certify that any minor repair or any replacement made to any aircraft of a type endorsed on his licence under that Category complies with the standards of airworthiness established by the Minister;
  - (c) recommend the renewal of the Certificate of Airworthiness or Flight Permit of any aircraft of a type endorsed on his licence under that Category; and
  - (d) certify as airworthy or serviceable any glider of a maximum permissible gross weight of 2,000 pounds or less.
5. A licensee whose licence is endorsed under Category "B" may
  - (a) after manufacture, repair, modification or overhaul certify as airworthy or serviceable any airframe or any part of an airframe of a type of aircraft endorsed on his licence under that Category;
  - (b) certify that any repair, replacement, modification or overhaul made to any airframe or any part of an airframe of a type of aircraft endorsed on his licence under that Category complies with the standards of airworthiness established by the Minister;
  - (c) certify as airworthy or serviceable any glider of maximum permissible gross weight of 2,000 pounds or less; and
  - (d) certify that any repair, replacement, modification or overhaul made to any glider of a maximum permissible gross weight of 2,000 pounds or less complies with the standards of airworthiness established by the Minister.

6. A licensee whose licence is endorsed under Category "D" may
- (a) after manufacture, repair, modification or overhaul certify as airworthy or serviceable any engine or any part of an engine of a type endorsed on his licence under that Category; and
  - (b) certify that any repair, replacement, modification or overhaul made to any engine or any part of an engine of a type endorsed on his licence under that Category complies with the standards of airworthiness established by the Minister.
7. A licensee whose licence is endorsed under Category "R" may
- (a) before flight certify as airworthy any aircraft of a type endorsed on his licence under that Category;
  - (b) certify that any minor repair or any replacement made to any aircraft of a type endorsed on his licence under that Category complies with the standards of airworthiness established by the Minister; and
  - (c) recommend the renewal of the Certificate of Airworthiness of any aircraft of a type endorsed on his licence under that Category.



# AIR NAVIGATION ORDERS

## SERIES V

### RULES OF THE AIR

| NUMBER | TITLE  | DATE           | SOR<br>NUMBER |
|--------|--|----------------|---------------|
| No. 1  | Special VFR Flights  | Apr. 15, 1955  | 55-142        |
| No. 2  | Cruising Altitudes   | July 24, 1964  | 64-304        |
|        | AMENDED  | Dec. 6, 1966   | 66-564        |
| No. 3  | Weather Minima for VFR Flight                                    | Mar. 20, 1961  | 61-123        |
| No. 4  | Flight Plans and Flight<br>Notifications                         | Apr. 7, 1961   | 61-148        |
|        | AMENDED  | Jan. 19, 1966  | 66-56         |
| No. 5  | Communication Failure in IFR<br>Flight                           | July 24, 1964  | 64-305        |
| No. 6  | Distress and Urgency Signals                                     | Mar. 31, 1966  | 66-183        |
| No. 7  | Visual Ground Signals  | Mar. 31, 1966  | 66-184        |
| No. 8  | Weather Minima, Alternate<br>Airports                            | Dec. 31, 1954  | 54-746        |
| No. 9  | Prohibited and Restricted<br>Airspace                            | May 21, 1965   | 65-226        |
| No. 10 | Flight Restrictions, National<br>Provincial and Municipal Parks. | Feb. 6, 1964   | 64-71         |
|        | AMENDED  | Aug. 24, 1966  | 66-406        |
| No. 11 | IFR Flight Position Reports.                                     | June 5, 1961   | 61-238        |
| No. 12 | Flight Precautions in Sparsely<br>Settled Areas.                 | Sept. 26, 1961 | 61-429        |
| No. 14 | Security Control of Air Traffic.                                 | May 21, 1965   | 65-218        |
|        | AMENDED  | Dec. 16, 1965  | 66-16         |
| No. 15 | Block Airspace Order.  | Oct. 14, 1966  | 66-491        |
|        | AMENDED  | Jan. 7, 1967   | 67-35         |
| No. 16 | Altimeter Setting Procedures                                     | July 2, 1965   | 65-282        |
| No. 18 | REVOKED  | Aug. 20, 1966  | 66-407        |

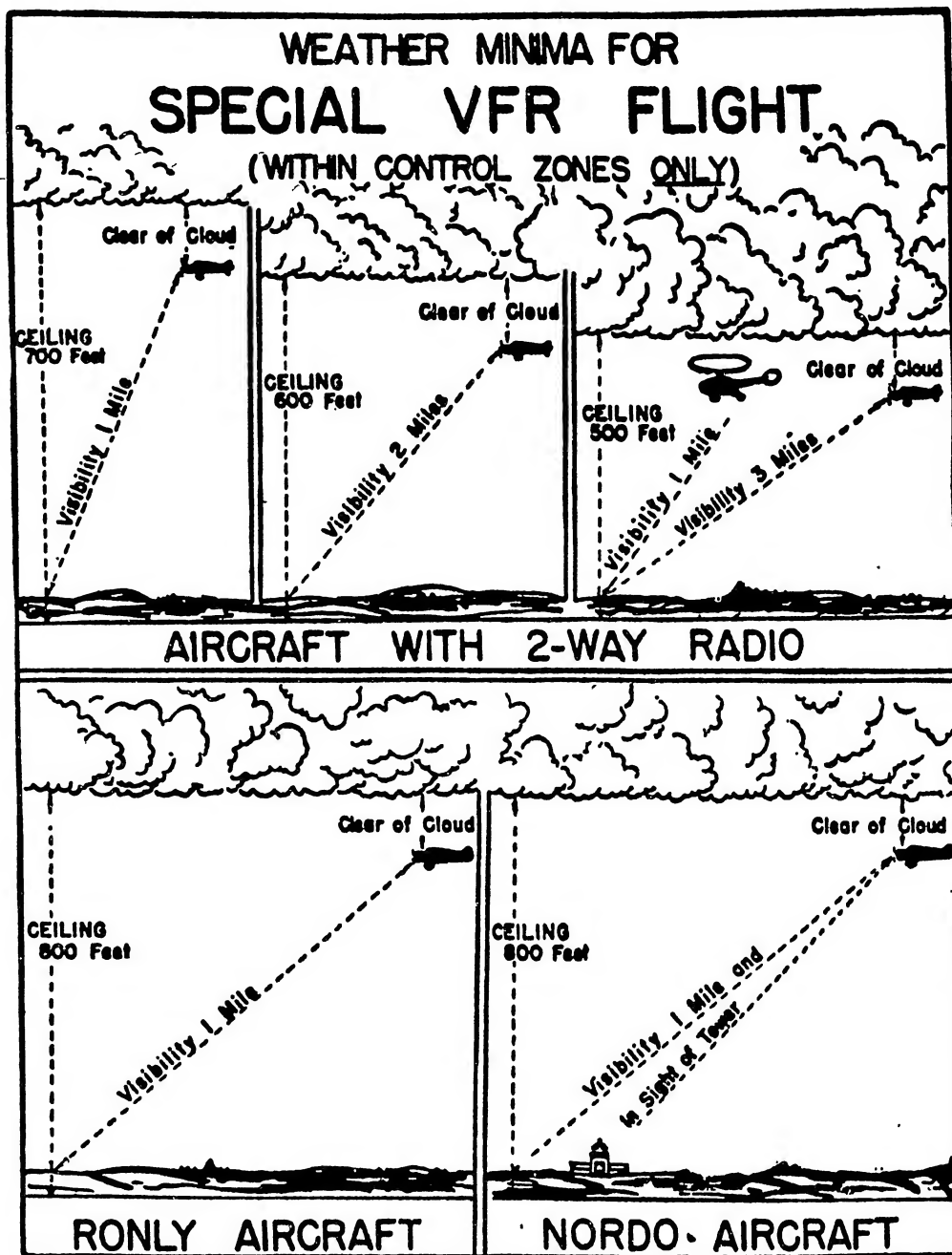
Amendment No. 18  
7/1/67



AIR NAVIGATION ORDER, SERIES V, No. 1

SPECIAL VFR FLIGHT (In A CONTROL ZONE ONLY!!)

1. When authorization is obtained from the appropriate air traffic control unit, flight may be undertaken, within control zones only, in IFR weather conditions without complying with the instrument flight rules; such flight may be authorized under the following conditions:
  - (a) aircraft without radio may be operated when the ceiling is not less than 800 feet and the visibility is not less than one mile, provided the aircraft shall remain within sight of the control tower at all times;
  - (b) aircraft equipped with receiver only may be operated when the ceiling is not less than 800 feet and the visibility is not less than one mile, and
  - (c) aircraft equipped with functioning two-way radio may be operated in weather conditions having at least the following limits:
    - (i) ceiling 500 feet; ground visibility 3 miles;
    - (ii) ceiling 600 feet; ground visibility 2 miles; or
    - (iii) ceiling 700 feet; ground visibility 1 mile;
    - (iv) helicopters only; ceiling 500 feet; ground visibility 1 mile.
2. Aircraft operating in accordance with the provisions of section 1 shall remain clear of cloud and within sight of the ground at all times.
3. While in flight, a pilot may request permission for Special VFR flight, by radio, and may be authorized to enter a control zone, provided that there is compliance with the conditions and requirements of this Order.
4. An air traffic clearance authorizing special VFR flight does not relieve the pilot of the responsibility for,
  - (a) complying with all applicable Air Regulations,
  - (b) avoiding other aircraft,
  - (c) avoiding weather conditions beyond his own flying capabilities, or
  - (d) avoiding weather conditions beyond the capabilities of the aircraft.



SOR/66-564  
Made on  
Dec. 6, 1966

SOR/64-304  
Made on  
July 24, 1964

AIR NAVIGATION ORDER, SERIES V, No. 2

CRUISING ALTITUDES ORDER

SHORT TITLE

1. This Order may be cited as the Cruising Altitudes Order.

INTERPRETATION

2. In this Order,
  - (a) "altimeter setting region" has the same meaning as in the Altimeter Setting Procedures Order (Air Navigation Order, Series V, No. 16);
  - (b) "altitude" means the altitude indicated on an altimeter set to the current altimeter setting in accordance with the requirements of the Altimeter Setting Procedures Order (Air Navigation Order, Series V, No. 16);
  - (c) "area of compass unreliability" means the area bounded by a line beginning at the North Geographic Pole; thence to Latitude 69°00' North, Longitude 141° West; thence to Churchill, Manitoba, Radio Range Station; thence to Latitude 66° North, Longitude 64° West; Latitude 76° North, Longitude 76° West; thence to Latitude 78° North, Longitude 75° West; thence to Latitude 82° North, Longitude 60° West; thence to the point of beginning;
  - (d) "block airspace" has the same meaning as in the Block Airspace Order (Air Navigation Order, Series V, No. 15);
  - (e) "flight level" means the altitude, expressed in hundreds of feet, indicated on an altimeter set to 29.92 inches of mercury or 1013.2 millibars;
  - (f) "magnetic track" means the angle measured clockwise from magnetic North to the path followed by the aircraft over the earth;
  - (g) "northern control area" means the area bounded by a line beginning at Latitude 69°00' North, Longitude 141° West; thence to Latitude 72° North, Longitude 129° West; thence to Latitude 72° North, Longitude 92°05' West; thence to Latitude 74° North, Longitude 68°18' West; thence to

Latitude 73° North, Longitude 67° West; thence to Latitude 65°30' North, Longitude 58°39' West; thence to Latitude 64° North, Longitude 63° West; thence to Latitude 61° North, Longitude 63° West; thence to Latitude 57° North, Longitude 59° West; thence to Latitude 53° North, Longitude 54° West; thence to Latitude 51° North, Longitude 62°30' West; thence to Latitude 52° North, Longitude 63°17' West; thence to Latitude 52° North, Longitude 100° West; thence to Latitude 54°49' North, Longitude 106°49' West; thence to Latitude 57° North, Longitude 114° West; thence to Latitude 57° North, Longitude 132°04' West; thence along the Canada - United States boundary to Latitude 60°21' North, Longitude 139°11' West; thence to Latitude 62° North, Longitude 141° West; thence along the Canada - United States boundary to the point of beginning;"

- (h) "standard pressure region" has the same meaning as in the Altimeter Setting Procedures Order (Air Navigation Order, Series V, No. 16); and
- (i) "true track" means the angle measured clockwise from true North to the path followed by aircraft over the earth.

#### GENERAL PROVISIONS AFFECTING ALL FLIGHTS

- 3. In level cruising VFR flight below 3,500 feet above the ground, aircraft shall be operated, if practicable, at an altitude or flight level appropriate to the direction of flight as set out in Schedule "A".
- 4. In level cruising VFR flight above 3,500 feet above the ground, aircraft shall be operated at an altitude or flight level appropriate to the direction of flight as set out in Schedule "A".
- 5. Except as otherwise authorized by the appropriate air traffic control unit, in VFR flight within the block airspace and in IFR flight, aircraft shall be operated at an altitude or flight level appropriate to the direction of flight as set out in Schedule "A".

#### SPECIAL FLIGHT PROVISIONS

- 6. No person shall operate an aircraft within controlled airspace above flight level 230 up to and including flight level 450 except in accordance with the instrument flight rules.
- 7. Aircraft in VFR and IFR flight on a magnetic track between 180° and 359° inclusive, may, if within controlled airspace and authorized by the appropriate air traffic control unit, be operated at flight level 180.

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8. Notwithstanding anything in this Order, aircraft in level cruising flight within the area of compass unreliability outside designated airways and air routes and within the northern control area above flight level 230, shall be operated at a flight level set out in Schedule "A" that is appropriate to the direction of flight determined in accordance with the true track rather than the magnetic track of the aircraft.

9. Notwithstanding anything in this Order, aircraft in level cruising VFR and IFR flight along an airway or air route set out in Schedule "B" shall, unless otherwise authorized by the appropriate air traffic control unit, be operated at an altitude or flight level appropriate to the direction of flight as set out in Schedule "B".

10. Aircraft crossing designated airways and air routes in VFR flight shall cross

- (a) in level cruising flight; and
- (b) at an angle of not less than 45 degrees to the airway or air route.

11. Aircraft operating in accordance with an air traffic control clearance in VFR weather conditions shall, notwithstanding the terms of the clearance, be operated in compliance with the provisions of Part V of the Air Regulations in order to avoid other aircraft.

#### SCHEDULE "A"

| Direction of flight<br>Magnetic track | Prescribed altitudes in feet and flight levels  |
|---------------------------------------|---|
| (1) 000° - 179° inclusive             | 1,000, 3,000, 5,000; 7,000, 9,000, 11,000, 13,000, 15,000 and 17,000 feet in the altimeter setting region or equivalent flight levels in the standard pressure region and flight levels 190, 210, 230, 250, 290, 330, 370, 410, 450, etc. |
| (2) 180° - 359° inclusive             | 2,000, 4,000, 6,000, 8,000, 10,000, 12,000, 14,000 and 16,000 feet in the altimeter setting region or equivalent flight levels in the standard pressure region and flight levels 200, 220, 270, 310, 350, 390, 430, 470, etc.             |

## SCHEDULE "B"

| Column I<br>Airway<br>or<br>Air Route | Column II<br>Direction<br>of Flight  | Column III<br>Prescribed Altitudes<br>and Flight Levels |
|---------------------------------------|--|---|
| 1. Blue Route 25                      | (1) From Ethelda Bay to Kitimat<br>(2) From Kitimat to Ethelda Bay                     | (1) Even *<br>(2) Odd +                                 |
| 2. Blue 84                            | (1) From Edmonton to Fort McMurray<br>(2) From Fort McMurray to Edmonton               | (1) Even *<br>(2) Odd +                                 |
| 3. Blue Route 24                      | (1) From Fort McMurray to Uranium<br>City<br>(2) From Uranium City to Fort<br>McMurray | (1) Even *<br>(2) Odd +                                 |
| 4. Blue Route 7                       | (1) From Grande Prairie to Peace River<br>(2) From Peace River to Grande Prairie       | (1) Even *<br>(2) Odd +                                 |
| 5. Blue 2                             | (1) From Saskatoon to Beechy<br>(2) From Beechy to Saskatoon                           | (1) Even *<br>(2) Odd +                                 |
| 6. Victor 303                         | (1) From Saskatoon to Swift Current<br>(2) From Swift Current to Saskatoon             | (1) Even *<br>(2) Odd +                                 |
| 7. Blue Route 3                       | (1) From Eskimo Point to Churchill<br>(2) From Churchill to Eskimo Point               | (1) Even *<br>(2) Odd +                                 |
| 8. Amber Route 7                      | (1) From Baker Lake to Churchill<br>(2) From Churchill to Baker Lake                   | (1) Even *<br>(2) Odd +                                 |
| 9. Blue 10                            | (1) From Timmins to Sudbury<br>(2) From Sudbury to Timmins                             | (1) Even *<br>(2) Odd +                                 |
| 10. Green 1                           | (1) From North Bay to Earlton<br>(2) From Earlton to North Bay                         | (1) Even *<br>(2) Odd +                                 |
| 11. Amber 12                          | (1) From Hopedale to Cartwright<br>(2) From Cartwright to Hopedale                     | (1) Even *<br>(2) Odd +                                 |
| 12. Victor 310                        | (1) From Saint John to French Lake<br>(2) From French Lake to Saint John               | (1) Even *<br>(2) Odd +                                 |
| 13. Blue 5                            | (1) From Caribou to Charlottetown<br>(2) From Charlottetown to Caribou                 | (1) Even *<br>(2) Odd +                                 |

## NOTES

\* Even - means an altitude or flight level set out in item (2) of Schedule "A"

+ Odd - means an altitude or flight level set out in item (1) of Schedule "A"

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24/7/64

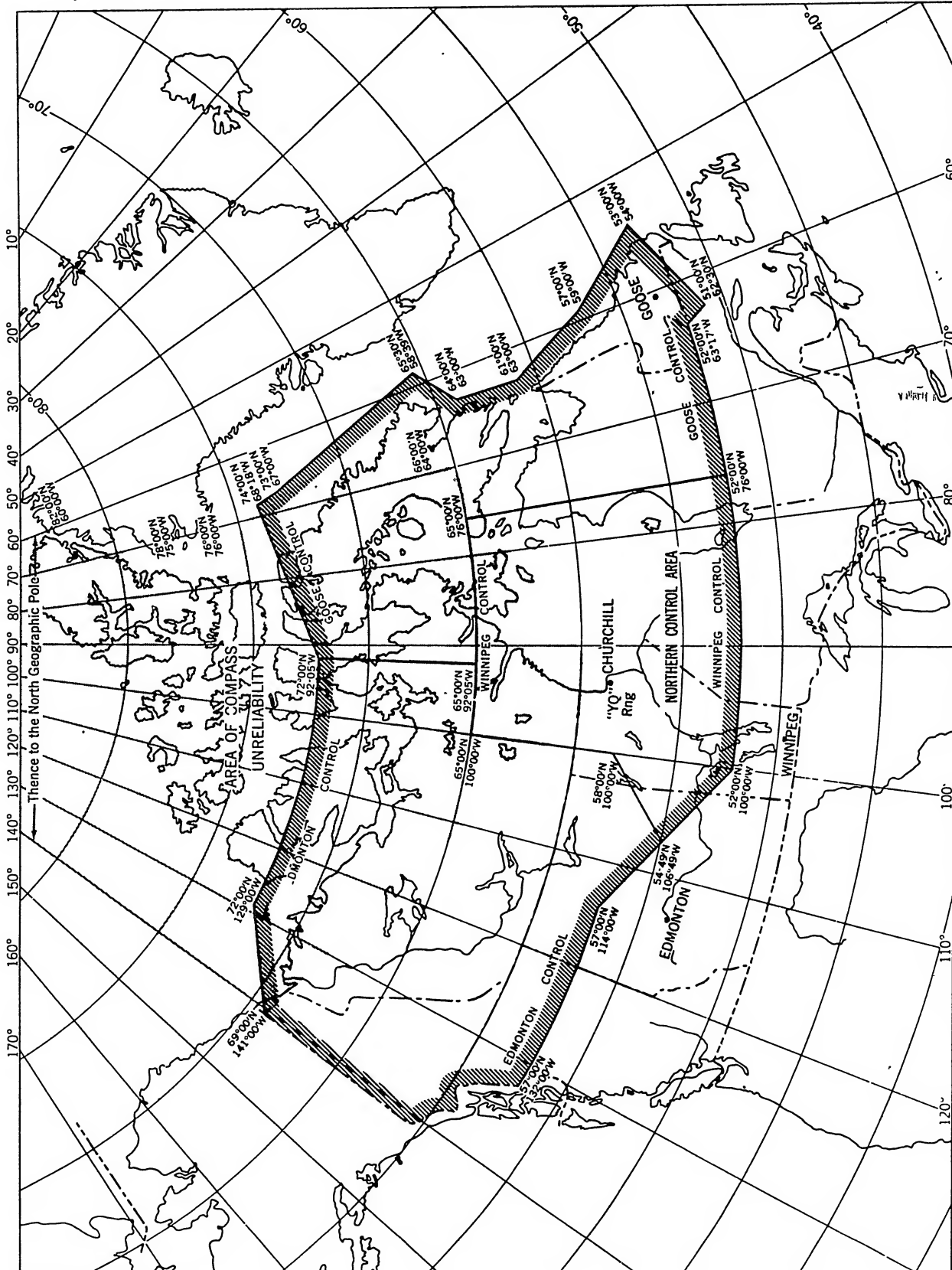


# CRUISING ALTITUDE CHART

| 180° - 359° | ← AIRCRAFT TRACK →   | 000° - 179° |
|-------------|--|-------------|
|             | corresponding  |             |
| ← FL 470    | ← ALTITUDES OR FLIGHT LEVELS →   | FL 450 →    |
| ← FL 430    |  | FL 410 →    |
| ← FL 390    |  | FL 370 →    |
| ← FL 350    | <div> <p>This chart applies to all aircraft in level cruising VFR flight and, unless otherwise authorized by A. T. C., to aircraft in IFR flight.</p> </div> | FL 330 →    |
| ← FL 310    |  | FL 290 →    |
| ← FL 270    |  | FL 250 →    |
| ← FL 220    |  | FL 230 →    |
| ← FL 200    |  | FL 210 →    |
| ← FL 180*   |  | FL 190 →    |
| ← 16,000    | * Only when assigned by Air Traffic Control  | 17,000 →    |
| ← 14,000    |  | 15,000 →    |
| ← 12,000    |  | 13,000 →    |
| ← 10,000    | OR EQUIVALENT FLIGHT LEVELS IF WITHIN  | 11,000 →    |
| ← 8,000     | ← THE STANDARD PRESSURE REGION →   | 9,000 →     |
| ← 6,000     |  | 7,000 →     |
| ← 4,000     |  | 5,000 →     |
| ← 2,000     |  | 3,000 →     |
|             |  | 1,000 →     |

**NOTE:** This Order comes into force at 0501 GMT on September 17th, 1964.

**Series V, No. 2 (cont.)**



Dept. of Mines and Technical Surveys

AIR NAVIGATION ORDER, SERIES V, No. 3

WEATHER MINIMA FOR VFR FLIGHT

CONTROLLED AIRSPACE

1. The weather minima for VFR flights in controlled airspace are as follows:
  - (a) within Control Zones, unless otherwise authorized by an air traffic control unit,
    - (i) ground visibility shall be 3 miles,
    - (ii) distance of an aircraft from cloud shall be 500 feet vertically, and 1 mile horizontally, and
    - (iii) distance of an aircraft from ground or water shall be 500 feet vertically; and
  - (b) within Control Areas,
    - (i) flight visibility shall be 3 miles, and
    - (ii) distance of an aircraft from cloud shall be 500 feet vertically, and 1 mile horizontally.
2. When an aircraft is in IFR flight the appropriate air traffic control unit may clear such flight to fly VFR without visual reference to the ground or water.

ELSEWHERE THAN IN CONTROLLED AIRSPACE

3. The weather minima for VFR flights within Aerodrome Traffic Zones are as follows:
  - (a) ground visibility shall be 3 miles,
  - (b) distance of an aircraft from cloud shall be 500 feet vertically, and 1 mile horizontally, and
  - (c) distance of an aircraft from ground or water shall be 500 feet vertically.
4. The weather minima for VFR flights elsewhere than in controlled airspace or Aerodrome Traffic Zones are as follows:
  - (a) at or above 700 feet from the ground or water,
    - (i) flight visibility shall be 1 mile,
    - (ii) distance of an aircraft from cloud shall be 500 feet vertically and 2,000 feet horizontally; and
  - (b) below 700 feet from the ground or water,
    - (i) flight visibility shall be 1 mile,
    - (ii) distance of aircraft from cloud shall be clear of cloud.

5. Notwithstanding section 4 and section 6, a helicopter may be operated below 700 feet from the ground or water when the flight visibility is less than one mile but not less than one-half mile, provided it is operated at such a reduced air speed as will give the pilot-in-command adequate opportunity to see other air traffic or obstructions in time to avoid a collision.

#### SPECIAL AREA

6. Notwithstanding section 4, the visibility minimum for VFR flight is 2 miles in the following area, except in controlled airspace and Aerodrome Traffic Zones:

that area in British Columbia and the adjacent coastal waters that can be generally described as being West of the ridge of the Coast Mountains to and including Vancouver Island and the Queen Charlotte Islands, and more precisely defined as that area within a boundary beginning at a point of origin on the United States-Canada boundary at Longitude 122°00'W. and approximately Latitude 49°00'N; thence via successive great circles to Latitude 50°00'N, Longitude 123°00'W. to Latitude 51°00'N. Longitude 125°00'W; thence via a great circle through a point at Latitude 55°52'N. Longitude 130°00'W. to the Alaska-Canada boundary; thence southward following this boundary to its terminus at approximately Latitude 54°42'30"N. Longitude 130°36'30"W; thence via a great circle to Latitude 54°40'N. Longitude 131°10'W; thence due south to Latitude 54°20'N. Longitude 131°10'W; thence due west to Latitude 54°20'N. Longitude 133°20'W. following successive great circles to Latitude 53°55'N. Longitude 133°25'W. to Latitude 53°00'N. Longitude 132°50'W. to Latitude 51°50'N. Longitude 131°10'W. to Latitude 50°50'N. Longitude 129°00'W. to Latitude 50°00'N. Longitude 128°10'W. to Latitude 48°30'N. Longitude 125°00'W. to the terminus of the United States-Canada boundary in Juan de Fuca Strait at Latitude 48°29'38"N. Longitude 124°43'35"W; thence easterly following the United States-Canada boundary to the point of origin.

## AIR NAVIGATION ORDER, SERIES V, No. 4

## FLIGHT PLANS AND FLIGHT NOTIFICATIONS

1. In this Order
  - (a) "communications base" means a place where facilities exist for communication by radio, telegraph or telephone with an air traffic control unit, and
  - (b) "sparsely settled areas" means those areas as defined in Air Navigation Order, Series V, No. 12 but does not include those areas within a twenty-five mile radius of an airport or operating base.
2. The pilot-in-command of an aircraft on a VFR flight at night or on a flight to or from a military aerodrome shall, except when the flight is to be conducted wholly or partly within a sparsely settled area, submit
  - (a) a VFR flight plan to an appropriate air traffic control unit, or
  - (b) a Flight Notification, if communication facilities are inadequate to permit communication with an appropriate air traffic control unit for the purpose of submitting a VFR flight plan or for the purpose of submitting an arrival report within thirty minutes after landing.
3. The pilot-in-command of an aircraft on a flight wholly or partly within a sparsely settled area shall, except when the flight is an IFR flight to be conducted within controlled airspace, submit a flight notification.
4. A Flight Notification shall be submitted
  - (a) to an appropriate air traffic control unit, or
  - (b) except when the flight is to be conducted to any military aerodrome, to a responsible person if communication facilities are inadequate to permit the Flight Notification being filed with an appropriate air traffic control unit.
5. Notwithstanding section 3, the pilot-in-command of a flight to be conducted wholly or partly within a sparsely settled area may submit an IFR or VFR flight plan to an appropriate air traffic control unit in lieu of a Flight Notification where the flight is a non-stop flight which commences and terminates at a communications base.
6. Except as authorized by the Assistant Deputy Minister, Air, a VFR flight plan, a Flight Notification and an IFR flight plan filed pursuant

Amendment No. 12

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Series V, No. 4 (cont.)

to section 545 of the Air Regulations shall contain the information set forth in Schedule A, B, or C respectively.

7. Notwithstanding anything in this Order, a DVFR Flight Plan or a Defence Flight Notification shall be filed in lieu of a VFR flight plan or flight notification if required by the Security Control of Air Traffic Order (Air Navigation Order, Series V, No. 14).

**SCHEDULE "A"**

**VFR FLIGHT PLANS**

Every VFR flight plan shall contain

- (a) the type of flight plan;
- (b) the flight or aircraft identification and the radio call sign if different from the flight or aircraft identification;
- (c) the type of aircraft or, in the case of a formation, the types and number of aircraft involved;
- (d) the proposed true airspeed at cruising altitude;
- (e) the point of departure or position of the aircraft if the flight plan is filed while the aircraft is in flight;
- (f) the abbreviation VFR where no specific altitude is to be maintained;
- (g) the route to be followed;
- (h) the destination aerodrome;
- (i) the proposed time of departure in Greenwich Mean Time;
- (j) the estimated elapsed time until over the destination aerodrome in hours and minutes;
- (k) the amount of fuel on board expressed in hours and minutes;
- (l) the radio frequencies to be used or the word "Ronly" meaning receiver only or the word "Nordo" meaning no radio;
- (m) the type of emergency radio transmitter if carried;
- (n) the total number of persons on board;
- (o) the name of the pilot-in-command or, in the case of a formation, the name of the formation commander;
- (p) the name and address of the operator of the aircraft; and
- (q) such additional information as may be requested by the appropriate air traffic control unit or considered relevant by the pilot-in-command.

## SCHEDULE "B"

### FLIGHT NOTIFICATIONS

Every flight notification shall contain

- (a) the type of flight notification;
- (b) the flight or aircraft identification and the radio call sign if different from the flight or aircraft identification;
- (c) the type of aircraft or, in the case of a formation, the types and number of aircraft involved;
- (d) the colours of the aircraft;
- (e) whether the aircraft is a landplane, a seaplane or an amphibian and if it is a landplane, whether it is equipped with wheels, skis or both of them;
- (f) the point of departure or position of the aircraft if the flight notification is filed while the aircraft is in flight;
- (g) the proposed date of and the proposed time of departure in Greenwich Mean Time;
- (h) the type of emergency radio transmitter if carried;
- (i) the radio frequencies to be used or the word "Ronly" meaning receiver only or the word "Nordo" meaning no radio;
- (j) the name and address of the pilot-in-command;
- (k) the flight itinerary and duration of stopovers;
- (l) the place, date, time and method of reporting arrival;
- (m) the name and address of the person or company to be notified if search and rescue action is initiated;
- (n) unless such information is otherwise available to the Minister on demand, the names and addresses of passengers carried; and
- (o) such additional information as may be required by the appropriate air traffic control unit or considered relevant by the pilot-in-command.



SCHEDULE "C"

IFR FLIGHT PLANS

Every IFR flight plan shall contain

- (a) the type of flight plan;
- (b) the flight or aircraft identification and the radio call sign if different from the flight or aircraft identification;
- (c) the type of aircraft or, in the case of a formation, the types and number of aircraft involved;
- (d) the proposed true airspeed at cruising altitude;
- (e) the point of departure or the position of the aircraft if the flight plan is filed while the aircraft is in flight;
- (f) the cruising altitude or altitudes and route to be followed;
- (g) the destination aerodrome;
- (h) the proposed time of departure in Greenwich Mean Time;
- (i) the estimated elapsed time until over the destination aerodrome in hours and minutes;
- (j) the alternate airport or airports;
- (k) the amount of fuel on board expressed in hours and minutes;
- (l) the radio frequencies to be used;
- (m) the type of emergency radio if carried;
- (n) the navigation and approach aids carried in the aircraft;
- (o) the total number of persons on board;
- (p) the name of the pilot-in-command or, in the case of a formation, the name of the formation commander;
- (q) the licence number of the pilot-in-command;
- (r) the name and address of the operator of the aircraft; and
- (s) such additional information as may be requested by the appropriate air traffic control unit or considered relevant by the pilot-in-command.



AIR NAVIGATION ORDER, SERIES V, No. 5

COMMUNICATION FAILURE IN IFR FLIGHT

1. This Order may be cited as the Communication Failure in IFR Flight Order.
2. The pilot-in-command of an aircraft operating in, or cleared to enter, controlled airspace in accordance with the instrument flight rules who, because of a communication failure, is unable to maintain two-way communication with an air traffic control unit shall, except where appropriate instructions to cover an anticipated failure have been received from an air traffic control unit, comply with the procedures set forth in this Order.
3. Where an aircraft is being operated in VFR weather conditions when a communication failure occurs, or if VFR weather conditions are encountered after the failure occurs, the pilot-in-command shall continue to fly in VFR weather conditions and land at the nearest suitable aerodrome.
4. Where the procedure in Section 3 cannot be followed, the pilot-in-command of the aircraft shall,
  - (a) proceed to the aerodrome of first intended landing in accordance with the flight plan as amended by clearances and instructions received and acknowledged, maintaining the last assigned altitude or flight level, or the minimum enroute IFR altitude, whichever is the higher; and
  - (b) commence a complete instrument approach procedure at
    - (i) the time of arrival,
    - (ii) the estimated time of arrival last transmitted to and acknowledged by the Air Traffic Control unit, or
    - (iii) the expected approach time last received and acknowledged,whichever is the latest time.
5. Where the pilot-in-command of the aircraft has been instructed to hold and cannot follow the procedure prescribed in Section 3, he shall, if no time to depart the holding point has been specified, depart the holding point at the expected further clearance time or the expected approach time.

6. Notwithstanding paragraph (a) of Section 4, the pilot-in-command of a turbine-powered aircraft shall, if cleared on departure to a point other than aerodrome of first intended landing, proceed to the aerodrome of first intended landing in accordance with the flight plan as amended by clearances and instructions received and acknowledged, maintaining the last assigned altitude or flight level, or the minimum enroute IFR altitude, whichever is the higher until 10 minutes beyond the point specified in the clearance and then proceed at the filed flight plan altitudes or flight levels.

7. (1) Where a communication failure is such that the pilot can transmit but cannot receive, he shall transmit to an air traffic control unit a full description of the procedure he is following, specifying the frequencies on which he will be transmitting.

(2) Where a communication failure is such that the pilot can receive but cannot transmit, he shall maintain a listening watch on the appropriate communication facility.

8. Following a communication failure, the pilot-in-command of the aircraft shall, as soon as practicable, report the circumstances to an air traffic control unit, stating the time and location of the failure.

NOTE: This Order comes into force on October 1st, 1964.

AIR NAVIGATION ORDER, SERIES V, NO. 6

DISTRESS AND URGENCY SIGNALS ORDER

1. This Order may be cited as the Distress and Urgency Signals Order.
2. None of the provisions of this Order shall have such effect as to prevent the use, by an aircraft in distress, of any means at its disposal to attract attention, make known its position and obtain help.

DISTRESS SIGNALS

3. The following signals shall be used, either together or separately, only where grave and imminent danger threatens and immediate assistance is requested:
  - (a) a signal made by radiotelegraphy or by any other signalling method consisting of the group SOS(... --- ...) in the Morse Code;
  - (b) a signal sent by radiotelephony consisting of the spoken word "Mayday";
  - (c) rockets or shells throwing red lights, fired one at a time at short intervals; and
  - (d) a parachute flare showing a red light.

URGENCY SIGNALS

4. (1) The following signals shall be used, either together or separately, only where an aircraft wishes to give notice of difficulties that compel it to land but where immediate assistance is not required:
  - (a) the repeated switching on and off of the landing lights; and
  - (b) the repeated switching on and off of the navigation lights in such a manner as to be distinct from flashing navigation lights.
- (2) The following signals shall be used, either together or separately, only where an aircraft has a very urgent message to transmit concerning the safety of a ship, aircraft, or other vehicle or of some person on board or within sight:
  - (a) a signal made by radiotelegraphy or by any other signalling method consisting of the group XXX; and
  - (b) a signal sent by radiotelephony consisting of the spoken word PAN.

NOTE. -- Article 36 of the International Telegraphic Union Radio Regulations (Nos 1463, 1464, 1465) provides information on the alarm signals for activating radiotelegraph and radiotelephone auto-alarm systems and thus securing attention to distress calls or messages. The radiotelegraph alarm signal consists of a series of twelve dashes sent in one minute, the duration of each dash being four seconds and the duration of the interval between consecutive dashes one second. It may be transmitted by hand but its transmission by means of an automatic instrument is recommended. The radiotelephone alarm signal consists of two substantially sinusoidal audio frequency tones transmitted alternately. One tone shall have a frequency of 2200 cycles per second and the other a frequency of 1300 cycles per second, the duration of each tone being 250 milliseconds. The radiotelephone alarm signal, when generated by automatic means, shall be sent continuously for a period of at least 30 seconds but not exceeding one minute; when generated by other means, the signal shall be sent as continuously as practicable over a period of approximately one minute.

AIR NAVIGATION ORDER, SERIES V, NO. 7

VISUAL GROUND SIGNALS ORDER

1. This Order may be cited as the Visual Ground Signals Order.
2. Where ground signals are displayed for the control of aerodrome traffic, they shall be as set out in the schedule to this Order.

SCHEDULE

PROHIBITION OF LANDING

1. A horizontal red square panel with yellow diagonals (Fig. 1) indicates that landings are prohibited and that the prohibition may be prolonged.



Figure 1.

NEED FOR SPECIAL PRECAUTIONS WHEN APPROACHING  
OR LANDING

2. A horizontal red square panel with one yellow diagonal (Fig. 2) indicates that owing to the bad state of the manoeuvring area, or for any other reason, special precautions must be observed in approaching to land or in landing.

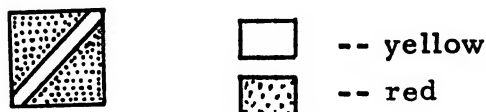


Figure 2.

## USE OF RUNWAYS AND TAXIWAYS

3. A horizontal white dumb-bell (Fig. 3) indicates that aircraft are required to land, take-off and taxi on runways and taxiways only.



Figure 3.

## UNSERVICEABILITY OF THE MANOEUVRING AREA

4. (1) Crosses of a single conspicuous colour, preferably white (fig. 4) displayed horizontally on the manoeuvring area define an area unfit for the movement of aircraft.

(2) Crosses as described in subsection (1) shall be displayed at each end of any unserviceable runway or taxiway or at each end of any unserviceable part of a runway or taxiway.

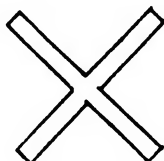


Figure 4.

## DIRECTIONS FOR LANDING OR TAKE-OFF

5. (1) A horizontal landing "T" of conspicuous colour (Fig. 5) shall indicate the direction to be used by aircraft for landing or taking-off: i. e. , along the shaft of the "T" towards the cross arm.

(2) When used at night, the landing "T" shall be either illuminated or outlined by white lights.

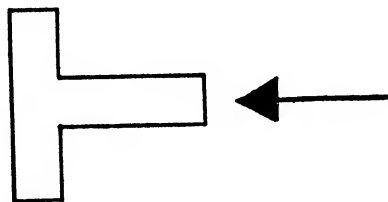


Figure 5.

Amendment No. 14  
31/3/66



AIR NAVIGATION ORDER, SERIES V, No. 8

WEATHER MINIMA, ALTERNATE AIRPORTS

1. An airport in a control area or a control zone shall not be included in a flight plan as an alternate airport unless current forecasts indicate that the ceiling and visibility at such airport will, at the expected time of arrival, be at or above the weather minima specified in The Canada Air Pilot, or elsewhere specified by the Minister, for that airport when so used.

2. Where the weather minima specified in The Canada Air Pilot for an airport when used as an alternate airport show the ceiling as 800 feet and the visibility as 2 miles, the following minima for that airport only may be applied:

ceiling — 800 feet — visibility 2 miles, or  
ceiling — 900 feet — visibility of  $1\frac{1}{2}$  miles, or  
ceiling — 1,000 feet — visibility 1 mile.



AIR NAVIGATION ORDER, SERIES V, NO. 9

PROHIBITED AND RESTRICTED AIRSPACE ORDER

1. This Order may be cited as the Prohibited and Restricted Airspace Order.

PENITENTIARIES

2. No aircraft shall be flown over any penitentiary, as defined in the Penitentiary Act, at an altitude below 5,000 feet above the ground except with the permission of the Director, Civil Aviation, and subject to such terms and conditions as may be specified by him.

CAMP GAGETOWN, NEW BRUNSWICK

3. (1) No aircraft shall be flown in the airspace over the area described in subsection (2) at an altitude below 25,000 feet above sea level except with the permission of the Director, Civil Aviation, and subject to such terms and conditions as may be specified by him.

(2) The area referred to in subsection (1) is the area bounded by a line commencing at Latitude 45°51'20" North, Longitude 66°15'40" West; thence to Latitude 45°46'00" North, Longitude 66°11'40" West; thence to Latitude 45°34'40" North, Longitude 66°05'30" West; thence to Latitude 45°26'07" North, Longitude 66°17'40" West; thence to Latitude 45°33'30" North, Longitude 66°32'00" West; thence to Latitude 45°40'00" North, Longitude 66°35'00" West; thence to Latitude 45°46'30" North, Longitude 66°29'15" West; thence to Latitude 45°48'00" North, Longitude 66°29'10" West; thence to Latitude 45°50'20" North, Longitude 66°25'40" West; thence to the point of beginning.

ST. LEONARD, NEW BRUNSWICK

4. (1) No aircraft shall be flown in the airspace over the area described in subsection (2) between 5,000 feet above sea level and flight level 240 inclusive except as authorized by the appropriate air traffic control unit.

(2) The area referred to in subsection (1) is the area bounded by a line commencing at Latitude 47°12'15" North, Longitude 67°58'20" West;

thence to Latitude 47°29'45" North, Longitude 68°03'10" West; thence to Latitude 47°30'15" North, Longitude 67°54'30" West; thence to Latitude 47°08'15" North, Longitude 67°54'20" West; thence along the United States-Canada Boundary to the point of beginning.

#### SUFFIELD, ALBERTA

5. (1) No aircraft shall be flown in the airspace over the area described in subsection (2) at

- (a) an altitude below 23,000 feet above sea level; or
- (b) during such period as may from time to time be specified by the Assistant Deputy Minister, Air, by means of a Notice to Airmen (NOTAM).

(2) The area referred to in subsection (1) is the area bounded by a line commencing at Latitude 50°40' North, Longitude 111°10' West; thence to Latitude 50°40' North, Longitude 110°35' West; thence to Latitude 50°13' North, Longitude 110°35' West; thence to Latitude 50°13' North, Longitude 111°10' West; thence to the point of beginning.

#### LAKE ST. PETER, QUEBEC

6. (1) No aircraft shall be flown in the airspace over the area described in subsection (2) except with the permission of the officer in charge of the Inspection Services Proof Establishment, Nicolet, Quebec, or his representative.

(2) The area referred to in subsection (1) is the area bounded by a line commencing at Latitude 46°15'00" North, Longitude 72°44'50" West; thence to Latitude 46°15'00" North, Longitude 72°47'37" West; thence to Latitude 46°11'57" North, Longitude 72°58'05" West; thence to Latitude 46°07'21" North, Longitude 72°55'00" West; thence along the south shore of Lake St. Peter to Latitude 46°12'17" North, Longitude 72°39'24" West; thence to Latitude 46°13'58" North, Longitude 72°38'28" West; thence along the west bank of the Nicolet River to the shore of Lake St. Peter; thence to the point of beginning.

#### PRIMROSE LAKE, ALBERTA AND SASKATCHEWAN

7. (1) No aircraft shall be flown in the airspace over the area described in subsection (2) except with the permission of the officer in charge of the aerodrome control tower, Royal Canadian Air Force Station, Cold Lake, Alberta, or his representative.

(2) The area referred to in subsection (1) is the area bounded by a line commencing at Latitude 54°46' North, Longitude 109°58' West; thence

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to Latitude 54°46' North, Longitude 108°25' West; thence to Latitude 55°20' North, Longitude 108°25' West; thence to Latitude 55°20' North, Longitude 111°18' West; thence to Latitude 54°46' North, Longitude 111°18' West; thence to Latitude 54°46' North, Longitude 110°13' West; thence to Latitude 54°44' North, Longitude 110°13' West; thence to Latitude 54°44' North, Longitude 109°58' West; thence to the point of beginning.

CHALK RIVER, ONTARIO

8. (1) No aircraft shall be flown in the airspace over the area described in subsection (2) at an altitude below 5,000 feet above the ground.

(2) The area referred to in subsection (1) is the area within a radius of four miles of Perch Lake, Latitude 46°02' North, Longitude 77°23' West.



SOR/66-406  
Made on  
Aug. 24, 1966

SOR/64-71  
Made on  
Feb. 6, 1964

AIR NAVIGATION ORDER, SERIES V, No. 10

FLIGHT RESTRICTIONS, NATIONAL, PROVINCIAL AND MUNICIPAL  
PARKS

1. This Order may be cited as the Flight Restrictions, National, Provincial and Municipal Parks Order.

2. In this Order,

- (a) Banff, Jasper and Prince Albert National Parks are as described in the Schedule to the National Parks Act;
- (b) Algonquin and Quetico Provincial Parks are as described in the Regulations made under the Provincial Parks Act, 1960 Revised Statutes of Ontario;
- (c) "lakes within Gatineau Park" means all lakes within the area described as follows: commencing at

Latitude 45°25'North, Longitude 75°44'30"West; thence to Latitude 45°34'30"North, Longitude 76°07'West; thence to Latitude 45°35'North, Longitude 76°15'West; thence to Latitude 45°40'30"North, Longitude 76°16'West; thence to Latitude 45°41'North, Longitude 76°08'West; thence to Latitude 45°38'30"North, Longitude 76°08'West; thence to Latitude 45°38'30"North, Longitude 75°56'West; thence to the point of beginning; and

- (d) the Siffleur Wilderness, the White Goat Wilderness and the Willmore Wilderness Park are as described in The Public Lands Act and The Willmore Wilderness Park Act of Alberta.

3. Except in the case of Quidi Vidi Municipal Park, this Order does not apply to state aircraft.

4. No person shall land or take off with an aircraft on any of the lakes within Gatineau Park except as may be permitted on prior notice by the Secretary, National Capital Commission, Ottawa, or in the event of emergency, by the Park Superintendent, Meach Lake, Province of Quebec.

5. No person shall land an aircraft on entry into, or take off with an aircraft on departure from, Banff, Jasper or Prince Albert National Parks

(a) except at

- (i) Banff Airport, located at Latitude 51°11'North, Longitude 115°32'West,

- (ii) Jasper (Henry House), located at Latitude 52°59'North, Longitude 118°03'West, or
- (iii) Prince Albert (Waskesiu-Seaplanes only), located at Latitude 53°55'North, Longitude 106°05'West; and
- (b) without reporting to the Park Superintendent or his representative for instructions.

6. (1) No person shall land an aircraft on entry into, or take off with an aircraft on departure from, Algonquin or Quetico Provincial Parks except at the following points:

#### ALGONQUIN PROVINCIAL PARK

- (a) Cedar Lake - Brent Provincial Department of Lands and Forests Deputy Headquarters located on the northwest shore of Cedar Lake approximately one half mile from Brent; Latitude 46°01'45" North, Longitude 78°28'20"West;
- (b) Grand Lake - Achray Provincial Department of Lands and Forests Deputy Headquarters located on the east side near the south end of Grand Lake at Achray; Latitude 45°52'00"North, Longitude 77°45'30"West;
- (c) Kioshkokwi Lake - Ranger Cabin located on the north shore of Kioshkokwi Lake near Kiosk; Latitude 46°05'17"North, Longitude 78°52'36"West;
- (d) Opeongo Lake - Provincial Department of Lands and Forests Experimental Station located on Sproule Bay at the south end of Lake Opeongo; Latitude 45°38'00"North, Longitude 78°22'00"West;
- (e) Smoke Lake - Provincial Department of Lands and Forests Air Base located at the northern tip of Smoke Lake; Latitude 45°32'30" North, Longitude 78°41'45"West;

#### QUETICO PROVINCIAL PARK

- (f) Basswood Lake - Ranger Cabin No. 16 located near the southeast portion of Basswood Lake on the southern tip of Ottawa Island; Latitude 48°02'45"North, Longitude 91°33'50"West;
- (g) Beaverhouse Lake - Ranger Cabin located on a small bay on the southeast shore of Beaverhouse Lake; Latitude 48°32'25"North, Longitude 92°03'15"West;
- (h) French Lake - Provincial Department of Lands and Forests building located on the eastern shore of French Lake; Latitude 48°40'10" North, Longitude 91°07'50"West;
- (i) Lac la Croix - Ranger Cabin located at the Narrows at the southwest end of Lac la Croix; Latitude 48°17'50"North, Longitude 91°59'45"West; and
- (j) Saganaga Lake - Ranger Cabin located on the south shore of Cache Bay; Latitude 48°12'30"North, Longitude 91°00'15"West.



(2) No person shall land an aircraft on entry into, or take off with an aircraft on departure from, Algonquin Provincial Park or Quetico Provincial Park without reporting to the Park Superintendent or his representative for instructions.

7. No person shall land or take off with an aircraft on Quidi Vidi Lake, St. John's, Newfoundland, except in an emergency or on a flight made in connection with the transportation of the sick or injured.

8. No person shall land or take off with an aircraft within the Siffleur Wilderness, the White Goat Wilderness or the Willmore Wilderness Park unless such landing or taking off has been permitted by the Director of Forestry, National Resources Building, Edmonton, Alberta.

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## AIR NAVIGATION ORDER, SERIES V, No. 11

## IFR FLIGHT POSITION REPORTS

1. This Order may be cited as the IFR Flight Position Reports Order.
2. Where, pursuant to section 548 of the Air Regulations, a position report is required over a designated reporting point, the position report shall be transmitted to the appropriate air traffic control unit and shall include information in the sequence set out as follows:
  - (a) the flight or aircraft identification and radio call sign if different from the flight or aircraft identification;
  - (b) the position of the aircraft;
  - (c) the time over the reporting point in Greenwich Mean Time;
  - (d) the altitude above sea level or flight level;
  - (e) the type of flight plan that has been filed;
  - (f) the name of the next designated reporting point and estimated time over that point in Greenwich Mean Time;
  - (g) the name only of the next succeeding reporting point along the route of flight; and
  - (h) such additional information as may be requested by the appropriate air traffic control unit or deemed relevant by the pilot-in-command.

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AIR NAVIGATION ORDER, SERIES V, No. 12

FLIGHT PRECAUTIONS IN SPARSELY SETTLED AREAS

1. This Order may be cited as the Flight Precautions in Sparsely Settled Areas Order.

2. In this Order,

(a) "sparsely settled areas" means

(i) Labrador;

(ii) all that part of Canada lying to the North of a line commencing at a point on the boundary of Quebec and Labrador twenty-five miles inland from the Strait of Belle Isle; thence westward along a line twenty-five miles inland from the North shore of the St. Lawrence River as far as the 49th parallel of latitude; thence westward along the 49th parallel to the 73rd meridian; thence due south to the 48th parallel of latitude; thence westward along a line twenty-five miles North of the line of the Canadian National Railway passing through La Tuque, Senneterre, Kapuskasing, Sioux Lookout and Minaki to the 95th meridian; thence in a straight line to Swan Lake, Manitoba; thence north along Amber Route 9 to the 54th parallel; thence due West to the boundary of Alberta and Saskatchewan; thence due North to 56°30'North; thence due West to the Alaska Highway; thence along the Alaska Highway to Dawson Creek; thence South along the Highway to the Town of Beaverlodge; thence in a straight line to the Town of Jasper; thence West along the Canadian National Railway passing through Yellowhead, Tete Jaune, McBride and Prince George to the 123rd meridian; thence due South to the 50th parallel; and thence due West to the 125th meridian; and

(iii) all that part of Canada lying West of the 125th meridian; and

(b) "multi-engine aircraft" means an aircraft having two or more engines that is capable of maintaining flight in the event of the failure of the critical engine.

3. (1) Except as provided in subsection (2), no person shall fly an aircraft on any flight wholly or partly within a sparsely settled area unless the aircraft is equipped with telecommunications and emergency equipment as prescribed in sections 4 and 5.

(2) Subsection (1) does not apply in the case of any flight conducted

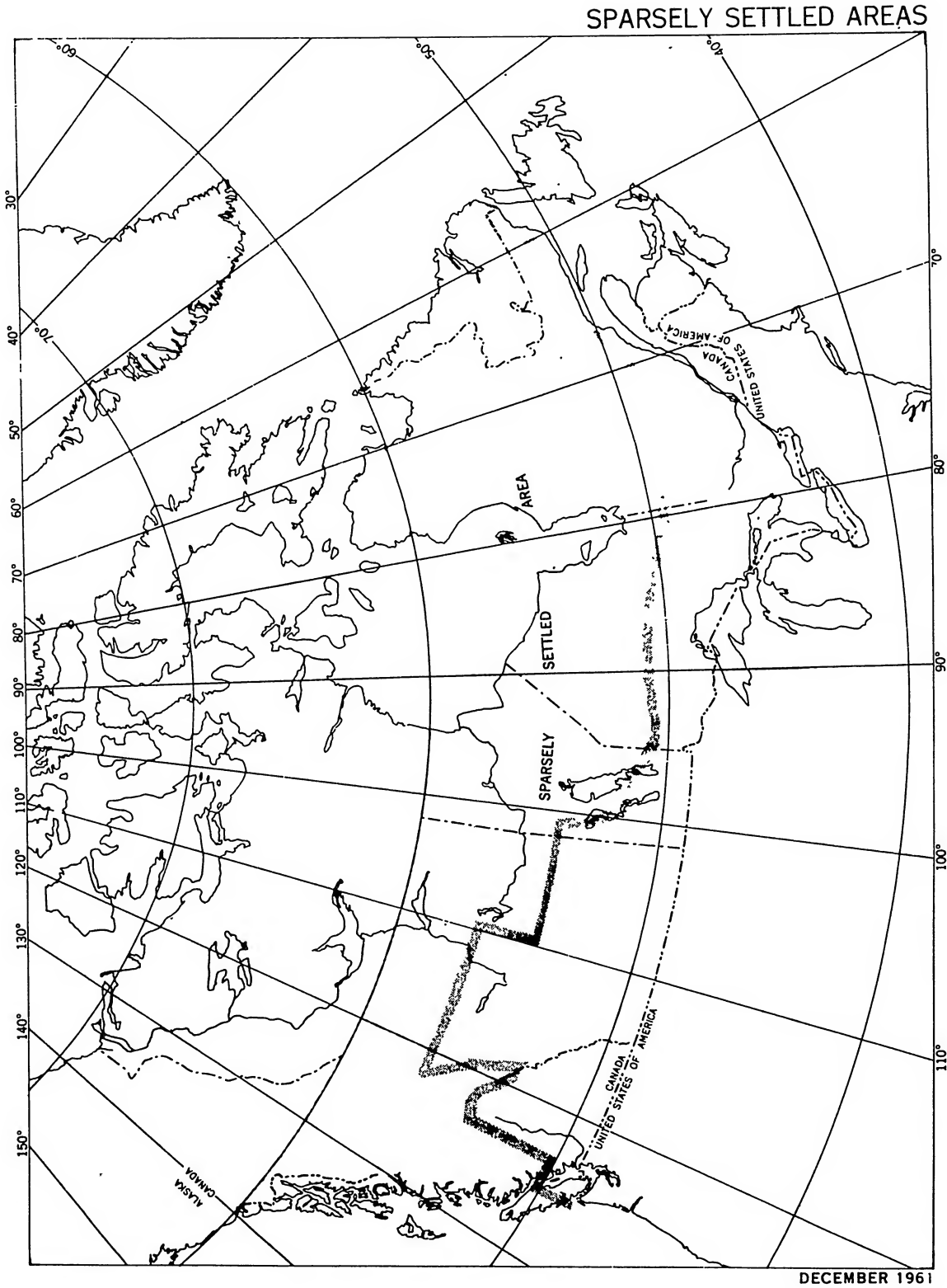
- (a) within twenty-five miles of an airport or operating base; or
- (b) in a multi-engine aircraft within controlled airspace or along designated air routes.

4. The telecommunications equipment to be carried by an aircraft when in a sparsely settled area is

- (a) radio equipment capable of two-way communication with a ground station in the area where the aircraft is operated; or
- (b) a portable emergency transmitter capable of
  - (i) operation on the ground independently of the aircraft battery,
  - (ii) transmitting on a distress frequency or a frequency used by the Royal Canadian Air Force for Search and Rescue purposes, and
  - (iii) maintaining output in both winter and summer temperatures.

5. Unless otherwise specified in an approved Operations Manual governing the operation of an aircraft on a commercial air service, an aircraft when flown in a sparsely settled area shall carry

- (a) for each person carried, five pounds of concentrated food or its equivalent that is of high nutritive value and not subject to damage by heat or cold and has been inspected by the owner of the aircraft or his representative not more than six months prior to the flight, the food to be contained in a waterproof package bearing a tag or label upon which is a certification of such inspection;
- (b) adequate cooking utensils and mess tins;
- (c) matches in a waterproof container;
- (d) portable compass;
- (e) an axe of two and one-half pounds or heavier with a twenty-eight inch handle;
- (f) thirty feet of snare wire;
- (g) a sharp jack knife or hunting knife of good quality;
- (h) additional equipment during summer conditions consisting of
  - (i) four trawls, two fishing lines with an assortment of hooks and sinkers and a fish net of not more than two inch mesh, and
  - (ii) sufficient mosquito nets to accommodate all persons carried; and
- (i) additional equipment during winter conditions consisting of
  - (i) sufficient tents to accommodate all persons carried or, in lieu thereof, engine or wing covers of suitable design and material,
  - (ii) sufficient sleeping bags to accommodate all persons carried, and
  - (iii) two pairs of snowshoes.



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SOR/65-218

SOR/66-16

Made on

Made on

May 21, 1965

December 16, 1965

## AIR NAVIGATION ORDER, SERIES V, NO. 14

### SECURITY CONTROL OF AIR TRAFFIC

#### PART I

#### SHORT TITLE

1. This Order may be cited as the Security Control of Air Traffic Order.

#### INTERPRETATION

2. (1) In this Order,
- (a) "coastal CADIZ" or "Coastal Canadian Air Defence Identification Zone" means the airspace extending upward from those areas off the coast of Canada described in Schedule A;
  - (b) "Defence flight notification" means a flight notification that
    - (i) includes the information required in a flight notification as set out in Schedule B of the Flight Plans and Flight Notifications Order, Series V, No. 4, and
    - (ii) states the flight level or altitude above sea level and the true airspeed to be flown;
  - (c) "domestic CADIZ" or "Domestic Canadian Air Defence Identification Zone" means the airspace extending upward from that area of Canada described in Schedule B;
  - (d) "DEWIZ" or "Distant Early Warning Identification Zone" means the airspace extending upward from that area of Canada described in Schedule C;
  - (e) "DEWIZ beacon" means a non-directional radio navigation aid beacon lying within the DEWIZ and described in Schedule D;
  - (f) "DVFR flight plan" means a flight plan that
    - (i) includes the information required in a VFR flight plan as set out in Schedule A of the Flight Plans and Flight Notifications Order, Series V, No. 4, and
    - (ii) states the flight level or altitude above sea level to be flown; and

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- (g) "SCATANA Rules" means the rules for the Security Control of Air Traffic and Air Navigation Aids as set forth in Part VI of this Order.

(2) In this Order a reference to a time or estimated time shall be to Greenwich Mean Time.

## PART II

### GENERAL

3. No person shall operate an aircraft into or within any identification zone unless
- (a) that aircraft is equipped with a two-way radio capable of permitting the communications required by this Order; and
  - (b) that person maintains a listening watch on a frequency that will permit the receipt of the instructions issued pursuant to this Order.
4. No deviation shall be made from a flight plan or flight notification filed for a flight into or within an identification zone unless
- (a) prior notification is given to the appropriate air traffic control unit or DEWIZ beacon; or
  - (b) where prior notification is not possible, the deviation is reported to an appropriate air traffic control unit or DEWIZ beacon as soon as practicable.
5. Where due to an emergency, the pilot-in-command of an aircraft is unable to comply with any provisions of this Order, he shall submit a detailed report of the emergency in writing to the Assistant Deputy Minister, Air, Department of Transport, within forty-eight hours of the emergency.
6. The pilot-in-command of an aircraft who, because of communication failure, is unable to comply with paragraph (b) of section 3 of this Order shall, if
- (a) operating in, or cleared to enter, controlled airspace in IFR flight, comply with the Communication Failure in IFR Flight Order (Air Navigation Order, Series V, No. 5); or
  - (b) in VFR flight, or in IFR flight other than IFR flight referred to in paragraph (a) proceed in accordance with his flight plan or flight notification or land at the nearest suitable aerodrome, except that if he has previously been notified that the SCATANA Rules are in effect, he shall land at the nearest suitable aerodrome.

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16/12/65

### PART III

#### DOMESTIC CADIZ RULES

7. This Part applies only to aircraft being operated at a true airspeed of one hundred and eighty knots or more.

8. No person shall operate an aircraft into or within the domestic CADIZ unless he has filed an IFR flight plan, a DVFR flight plan or a Defence flight notification with an appropriate air traffic control unit.

9. The pilot-in-command of a flight that will penetrate the domestic CADIZ through the northern boundary shall provide position reports or estimates of that penetration to an appropriate air traffic control unit as follows:

- (a) in the case of a flight for which an IFR flight plan has been filed and that will be conducted within controlled airspace, the pilot-in-command shall comply with normal IFR position reporting requirements; or
- (b) in the case of a flight for which an IFR flight plan has been filed and that will be conducted outside controlled airspace and in the case of a flight for which a DVFR flight plan or a Defence flight notification has been filed, the pilot-in-command shall report
  - (i) over the last reporting point on the route of flight prior to penetrating the domestic CADIZ, his position, altitude, time and estimated time of arrival over the next reporting point, or
  - (ii) if it is not possible to make the report and estimate referred to in sub paragraph (i), the pilot-in-command shall report his altitude and estimated time and place of penetration at least fifteen minutes prior to penetration.

10. The pilot-in-command of an aircraft shall revise his estimate with an appropriate air traffic control unit when the aircraft will not be within

- (a) a time tolerance of plus or minus five minutes of the estimated time over
  - (i) a reporting point,
  - (ii) the point of penetration of the domestic CADIZ, or
  - (iii) the point of destination within the domestic CADIZ; or
- (b) a distance tolerance of ten nautical miles from

- (i) the estimated point of penetration of the domestic CADIZ, or
- (ii) the centre line of the route of flight notified to or approved by air traffic control.

#### PART IV

##### COASTAL CADIZ RULES

11. This Part applies only to aircraft being operated at a true airspeed of one hundred and eighty knots or more.
12. The pilot-in-command of an aircraft that will operate within a coastal CADIZ toward the land mass of Canada shall
- (a) file an IFR flight plan, a DVFR flight plan or a Defence flight notification before take off from his last location prior to his operation within the coastal CADIZ; and
  - (b) provide an appropriate air traffic control unit with position reports required by the instrument flight rules.
13. The pilot-in-command of an aircraft that is operating within a coastal CADIZ toward the land mass of Canada shall revise his estimate with an appropriate air traffic control unit when the aircraft will not be within
- (a) a time tolerance of plus or minus five minutes of the estimated time over any reporting point; or
  - (b) a distance tolerance of twenty nautical miles from the centre line of the route of flight last notified to or approved by air traffic control.

#### PART V

##### DISTANT EARLY WARNING IDENTIFICATION ZONE RULES

14. This Part applies only to aircraft being operated at a true airspeed of one hundred and eighty knots or more.
15. The pilot-in-command of an aircraft that will penetrate the DEWIZ toward the continental land mass of Canada shall
- (a) file an IFR flight plan, a DVFR flight plan or a Defence flight notification with an appropriate air traffic control unit or DEWIZ beacon before take-off from his last location prior to his penetrating the DEWIZ;
  - (b) include in such flight plan or flight notification, the estimated time and place of DEWIZ penetration;

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- (c) establish radio-telephone communication with an appropriate DEWIZ beacon or aeronautical communication facility as soon as possible and make a position report including the estimated time and place of DEWIZ penetration; and
- (d) upon request by a DEWIZ beacon or an aeronautical communication facility, advise that beacon or facility as to the difference in time and distance between the revised estimated time and place of DEWIZ penetration and the time and place of DEWIZ penetration indicated on the flight plan or flight notification.

16. The pilot-in-command of an aircraft departing from a location within the DEWIZ shall

- (a) before take-off, file an IFR flight plan, a DVFR flight plan or a Defence flight notification with an appropriate air traffic control unit or DEWIZ beacon; and
- (b) as soon as possible after take-off, establish radio-telephone communication with an appropriate DEWIZ beacon and make a position report.

17. Notwithstanding sections 14 and 15, the pilot-in-command of an aircraft departing from a location in Canada north of or within the DEWIZ, which location does not have facilities for the immediate transmission of flight plan information, and that will penetrate or operate within the DEWIZ shall

- (a) as soon as possible after take-off, establish radio-telephone communication with an appropriate air traffic control unit or DEWIZ beacon and file an IFR flight plan, a DVFR flight plan or a Defence flight notification;
- (b) include in such flight plan or flight notification the estimated time and place of DEWIZ penetration where applicable; and
- (c) when requested to do so by an appropriate air traffic control unit or DEWIZ beacon, fly at a speed of less than one hundred and fifty knots for a period of not less than five minutes for positive identification.

18. The pilot-in-command of an aircraft shall revise his estimate with an appropriate air traffic control unit or DEWIZ beacon when the aircraft will not be within

- (a) a time tolerance of plus or minus five minutes of the estimated time over
  - (i) a reporting point,
  - (ii) the point of penetration of the DEWIZ, or
  - (iii) the point of destination within the DEWIZ; or

- (b) a distance tolerance of twenty nautical miles from
  - (i) the estimated point of penetration of the DEWIZ, or
  - (ii) the centre line of the route of flight indicated on the flight plan or flight notification.

## PART VI

### SECURITY CONTROL OF AIR TRAFFIC AND AIR NAVIGATION AIDS RULES

- 19. This Part Applies to all aircraft when the SCATANA Rules are in effect.
- 20. For the purpose of this Part, the domestic CADIZ is deemed to extend southward to the Canada-United States Border.
- 21. When notified by Radio or other means that the SCATANA Rules are in effect, the pilot-in-command of an aircraft operating into or over Canada or its territorial waters shall comply with all instructions from an appropriate air traffic control unit to change course or altitude or to land.
- 22. When notified by radio or other means that the SCATANA Rules are in effect, the pilot-in-command of an aircraft that will be operated into or within the DEWIZ, domestic CADIZ or coastal CADIZ shall
  - (a) before take-off, obtain approval for the flight from an appropriate air traffic control unit; and
  - (b) provide an appropriate air traffic control unit with position reports as required by the instrument flight rules
    - (i) when within controlled airspace, and
    - (ii) at least every thirty minutes when outside controlled airspace.

SCHEDULE "A"

1. The Pacific coastal CADIZ is the airspace extending upward from the area described as follows:

Commencing at Latitude 52°00' North, Longitude 135°00' West; thence to Latitude 53°00' North, Longitude 132°50' West; thence to Latitude 52°00' North, Longitude 132°00' West; thence to Latitude 48°30' North, Longitude 125°00' West; thence to Latitude 48°20' North, Longitude 128°00' West; thence to Latitude 48°20' North, Longitude 132°00' West; thence to Latitude 52°00' North, Longitude 135°00' West; thence to the point of beginning.

2. The Atlantic coastal CADIZ is the airspace extending upward from the area described as follows:

Commencing at Latitude 65°00' North, Longitude 63°00' West; thence to Latitude 65°00' North, Longitude 58°15' West; thence to Latitude 60°00' North, Longitude 56°00' West; thence to Latitude 55°30' North, Longitude 50°30' West; thence to Latitude 48°00' North, Longitude 47°00' West; thence to Latitude 45°00' North, Longitude 48°00' West; thence to Latitude 39°30' North, Longitude 63°45' West; thence to Latitude 43°00' North, Longitude 65°48' West; thence to Latitude 43°00' North, Longitude 65°00' West; thence to Latitude 45°00' North, Longitude 58°30' West; thence to Latitude 45°20' North, Longitude 56°00' West; thence to Latitude 46°00' North, Longitude 51°00' West; thence to Latitude 49°00' North, Longitude 51°00' West; thence to Latitude 53°00' North, Longitude 54°00' West; thence to Latitude 57°00' North, Longitude 59°00' West; thence to Latitude 61°00' North, Longitude 63°00' West; thence to the point of beginning.

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SCHEDULE "B"

1. The domestic CADIZ is the airspace extending upward from the area described as follows:

Commencing at Latitude 53°00' North, Longitude 132°55' West; thence to Latitude 58°30' North, Longitude 123°00' West; thence to Latitude 58°30' North, Longitude 114°00' West; thence to Latitude 54°00' North, Longitude 96°00' West; thence to Latitude 54°00' North, Longitude 69°00' West; thence to Latitude 59°00' North, Longitude 64°00' West; thence to Latitude 59°00' North, Longitude 60°50' West; thence to Latitude 57°00' North, Longitude 59°00' West; thence to Latitude 55°30' 30" North, Longitude 56°59'30" West; thence to Latitude 51°00' North, Longitude 68°00' West; thence to Latitude 51°00' North, Longitude 96°00' West; thence to Latitude 55°00' North, Longitude 114°00' West; thence to Latitude 55°00' North, Longitude 121°00' West; thence to Latitude 51°00' North, Longitude 129°45' West; thence to Latitude 52°00' North, Longitude 132°00' West; thence to the point of beginning.

SCHEDULE "C"

1. The DEWIZ is the airspace extending upward from the area described as follows:

Commencing at Latitude 71°00' North, Longitude 141°00' West; thence to Latitude 71°00' North, Longitude 68°00' West; thence to Latitude 69°00' North, Longitude 61°45' West; thence to Latitude 65°00' North, Longitude 58°15' West; thence to Latitude 65°00' North, Longitude 63°00' West; thence to Latitude 68°00' North, Longitude 70°00' West; thence to Latitude 68°00' North, Longitude 141°00' West; thence to the point of beginning.



# SCHEDULE "D"

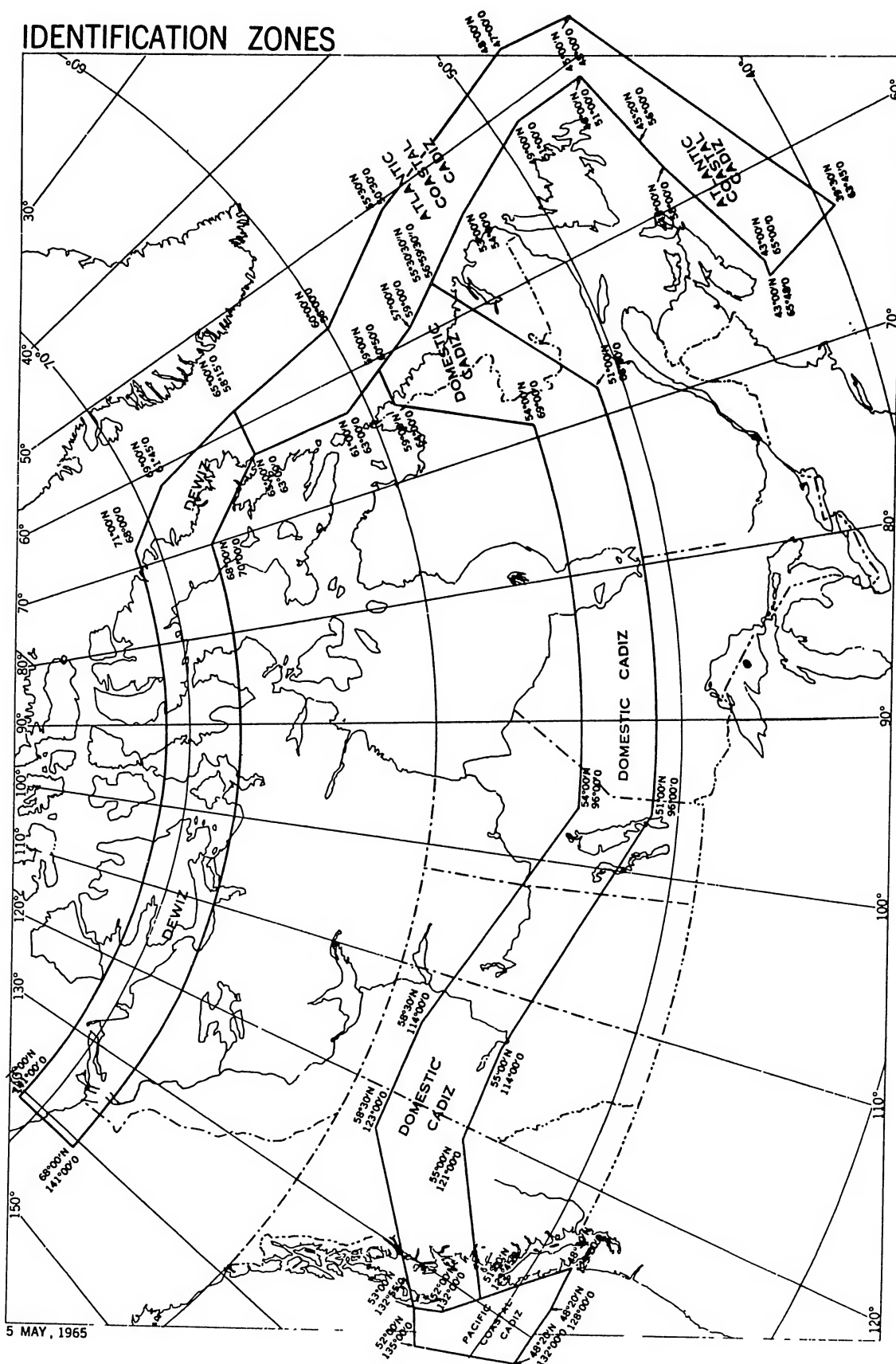
## 1. The DEWIZ beacons are described as follows:

| Name               | Location   | Identification | Frequency | Transmitting Frequencies                             | Receiving Frequencies   |
|--------------------|--|----------------|-----------|--|---|
| 1. Cape Dyer       | Latitude 66°38'50" North<br>Longitude 61°23'20" West | VN             | 248 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 2. Broughton       | Latitude 67°33'19" North<br>Longitude 63°49'16" West | VM             | 230 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 3. Cape Hooper     | Latitude 68°26'15" North<br>Longitude 66°44'00" West | UZ             | 287 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 4. Dewar Lakes     | Latitude 68°40'47" North<br>Longitude 71°14'48" West | UW             | 315 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 5. Longstaff Bluff | Latitude 68°53'45" North<br>Longitude 75°09'38" West | UV             | 275 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 6. Rowley          | Latitude 69°03'30" North<br>Longitude 79°01'37" West | UG             | 257 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 7. Hall Beach      | Latitude 68°45'25" North<br>Longitude 81°13'35" West | UX             | 239 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 8. Mackar Inlet    | Latitude 68°18'03" North<br>Longitude 85°40'29" West | UU             | 212 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 mc/s |
| 9. Pelly Bay       | Latitude 68°26'42" North<br>Longitude 89°45'14" West | UF             | 201 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 10. Shepherd Bay   | Latitude 68°48'38" North<br>Longitude 93°25'57" West | US             | 321 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 11. Gladman Point  | Latitude 68°40'16" North<br>Longitude 97°48'36" West | UR             | 300 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |

**SCHEDULE "D" - Continued**

| Name              | Location  | Identification | Frequency | Transmitting Frequencies                             | Receiving Frequencies   |
|-------------------|---|----------------|-----------|--|---|
| 12. Jenny Lind    | Latitude 68°40'12" North<br>Longitude 101°43'40" West | UQ             | 218 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 13. Cambridge Bay | Latitude 69°06'47" North<br>Longitude 105°07'10" West | MG             | 327 kc/s  | 122.2 mc/s<br>121.6 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 14. Byron Bay     | Latitude 68°45'30" North<br>Longitude 109°04'12" West | UK             | 272 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 15. Lady Franklin | Latitude 68°28'42" North<br>Longitude 113°12'32" West | UJ             | 227 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 16. Cape Young    | Latitude 68°55'47" North<br>Longitude 116°55'45" West | UI             | 260 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 17. Clinton Point | Latitude 69°34'40" North<br>Longitude 120°47'50" West | UH             | 209 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 18. Cape Perry    | Latitude 70°10'20" North<br>Longitude 124°43'40" West | UE             | 203 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 19. Nicholson     | Latitude 69°55'38" North<br>Longitude 128°58'13" West | UC             | 215 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 20. Tuktoyaktuk   | Latitude 69°26'38" North<br>Longitude 132°59'34" West | UB             | 380 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 21. Shingle Point | Latitude 68°56'41" North<br>Longitude 137°13'06" West | UA             | 221 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |
| 22. Komakuk Beach | Latitude 69°35'37" North<br>Longitude 140°10'56" West | AJ             | 388 kc/s  | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s | 122.2 mc/s<br>121.5 mc/s<br>236.6 mc/s<br>243.0 mc/s<br>3023.5 kc/s |

5 MAY, 1965





SOR/67-35  
Made on  
Jan. 7, 1967

SOR/66-491  
Made on  
Oct. 14, 1966.

AIR NAVIGATION ORDER, SERIES V, NO. 15

BLOCK AIRSPACE ORDER

1. This Order may be cited as the Block Airspace Order.
2. In this Order, "block airspace" means the airspace within designated airways
  - (a) between 9,500 feet above sea level and flight level 230, inclusive, east of longitude 114° West, and
  - (b) between 12,500 feet above sea level and flight level 230, inclusive, west of Longitude 114° West,except that on Amber Airway 2, Blue Airway 14, Victor Airway 301 and Victor Airway 301W between Edmonton, Calgary and Cowley, Alberta, "Block airspace" also includes the airspace between 9,500 feet and 12,500 feet above sea level.
3. Notwithstanding the weather conditions or the height of the terrain, no person shall operate an aircraft in VFR flight within block airspace except in accordance with a clearance for VFR flight issued by the appropriate air traffic control unit.
4. No person holding a commercial or private pilot licence without an instrument rating shall operate an aircraft in VFR flight within block airspace unless he has successfully completed a written examination demonstrating his knowledge of radio navigation and of air traffic control procedure applicable to IFR flight including clearances and position reports, and his pilot licence is endorsed to that effect.
5. No clearance for VFR flight within block airspace shall be issued unless
  - (a) a VFR flight plan containing information as to the altitude at which the aircraft is to be operated and the route to be followed has been filed with the appropriate air traffic control unit;
  - (b) altitudes are available and traffic conditions are such that the flight can be accommodated; and
  - (c) the aircraft is fitted with radio apparatus that is adequate to permit
    - (i) reception of such signals from radio aids to navigation as are necessary to enable the operation of the aircraft in accordance with air traffic control clearances, and
    - (ii) compliance with the requirements of subsection (2) of section 6.

6. (1) The pilot-in-command of an aircraft in VFR flight within block airspace shall comply with the requirements of subsections (2) and (3) and of all clearances issued by the appropriate air traffic control unit.

- (2) Where an aircraft is in VFR flight within block airspace,
  - (a) a continuous listening watch shall be maintained on a radio frequency used by an appropriate air traffic control unit or on a radio frequency used by a station for the transmission of messages from an appropriate air traffic control unit; and
  - (b) position reports shall be transmitted to that air traffic control unit or to that station when the aircraft is over designated reporting points and any other reporting points specified by the air traffic control unit.

(3) Aircraft in VFR flight within block airspace shall, when less than minimum VFR weather conditions are observed ahead or when compliance with the provisions of subsection (2) is impossible,

- (a) maintain VFR flight at all times;
- (b) leave the designated airway immediately without climbing or descending;
- (c) when clear of the airway
  - (i) proceed, remaining clear of designated airways, or
  - (ii) descend, remaining clear of designated airways, until below the block airspace before returning to the airway; and
- (d) inform the appropriate air traffic control unit as soon as possible of the action taken pursuant to paragraphs (b) and (c).

## AIR NAVIGATION ORDER, SERIES V, No. 16

## ALTIMETER SETTING PROCEDURES

## SHORT TITLE

1. This Order may be cited as the Altimeter Setting Procedures Order.

## INTERPRETATION

2. In this Order,
- (a) "aircraft altimeter" means, in respect of an aircraft, the altimeter with reference to which the aircraft is flown;
- (b) "altimeter setting region" means
- (i) all airspace below 18,000 feet above sea level over the area bounded by a line described as follows:

Commencing at Latitude 64°14' North, Longitude 67°22' West;  
thence to Latitude 62°00' North, Longitude 63°00' West;  
thence to Latitude 61°00' North, Longitude 63°00' West;  
thence to Latitude 57°00' North, Longitude 59°00' West;  
thence to Latitude 53°00' North, Longitude 54°00' West;  
thence to Latitude 49°00' North, Longitude 51°00' West;  
thence to Latitude 45°00' North, Longitude 51°00' West;  
thence to Latitude 45°00' North, Longitude 53°00' West;  
thence to Latitude 43°36' North, Longitude 60°00' West;  
thence to Latitude 41°52' North, Longitude 67°00' West;  
thence to Latitude 44°30' North, Longitude 67°00' West;  
thence to Latitude 44°30' North, Longitude 67°07' West;  
thence to Latitude 44°46'36" North, Longitude 66°54'11" West  
thence along the United States - Canadian Boundary to  
Latitude 48°29'38" North, Longitude 124°43'35" West;  
thence to Latitude 48°30' North, Longitude 125°00' West;  
thence to Latitude 52°00' North, Longitude 132°00' West;  
thence to Latitude 53°17'40" North, Longitude 133°12' West;  
thence to Latitude 54°13'30" North, Longitude 134°57' West;  
thence to Latitude 54°30' North, Longitude 132°30' West;  
thence to Latitude 54°42'30" North, Longitude 130°36'30" West;  
thence along the United States - Canadian Boundary to  
Latitude 70°00' North, Longitude 141°00' West;

thence to Latitude 70°00' North, Longitude 129°30' West;  
thence to Latitude 63°30' North, Longitude 120°00' West;  
thence to Latitude 63°00' North, Longitude 112°00' West;  
thence to Latitude 59°30' North, Longitude 106°00' West;  
thence to Latitude 54°30' North, Longitude 108°00' West;  
thence to Latitude 51°30' North, Longitude 99°00' West;  
thence to Latitude 51°30' North, Longitude 83°30' West;  
thence to Latitude 47°00' North, Longitude 75°00' West;  
thence to Latitude 55°11' North, Longitude 70°35' West;  
thence to Latitude 55°15' North, Longitude 61°30' West;  
thence to Latitude 63°22' North, Longitude 69°56' West;  
thence along an arc on a 50 mile radius north of the Frobisher  
range station to the point of beginning, and

- (ii) all controlled airspace below 18,000 feet above sea level  
over that area of Canada that is not described in subparagraph  
(i).
- (c) "flight level" means the altitude, expressed in hundreds of feet,  
indicated on an altimeter set to 29.92 inches of mercury or 1013.2  
millibars; and
- (d) "standard pressure region" means
  - (i) all airspace at and above 18,000 feet above sea level over the  
area described in subparagraph (i) of paragraph (b), and
  - (ii) all uncontrolled airspace below 18,000 feet above sea level  
and all airspace at and above 18,000 feet above sea level over  
that area of Canada not described in subparagraph (i)  
of paragraph (b).

#### ALTIMETER SETTING REGION

3. The pilot-in-command of an aircraft shall, prior to take-off  
from an aerodrome located within the altimeter setting region, set the air-  
craft altimeter to the current altimeter setting of that aerodrome or, if  
that altimeter setting is not obtainable, to the elevation of that aerodrome.

4. The pilot-in-command of an aircraft shall, during flight  
within the altimeter setting region, set the aircraft altimeter to the current  
altimeter setting of the nearest station along the route of flight or, where  
such stations are separated by more than 150 nautical miles, to the nearest  
station to the route of flight.

5. The pilot-in-command of an aircraft operating within the  
altimeter setting region shall, when approaching the aerodrome of intended  
landing, set the aircraft altimeter to the current altimeter setting of that

Amendment No. 8



aerodrome if that altimeter setting is obtainable.

6. Except as otherwise authorized by the appropriate air traffic control unit, the pilot-in-command of an aircraft flying from the altimeter setting region into the standard pressure region shall set the aircraft altimeter to 29.92 inches of mercury or 1013.2 millibars immediately following entry into the standard pressure region.

#### STANDARD PRESSURE REGION

7. Except as otherwise provided in this Order, no person shall operate an aircraft within the standard pressure region unless the aircraft altimeter is set to 29.92 inches of mercury or 1013.2 millibars.

8. The pilot-in-command of an aircraft shall, prior to taking off from an aerodrome located within the standard pressure region, set the aircraft altimeter to the current altimeter setting of the aerodrome of departure or, if that altimeter setting is not obtainable, to the elevation of that aerodrome.

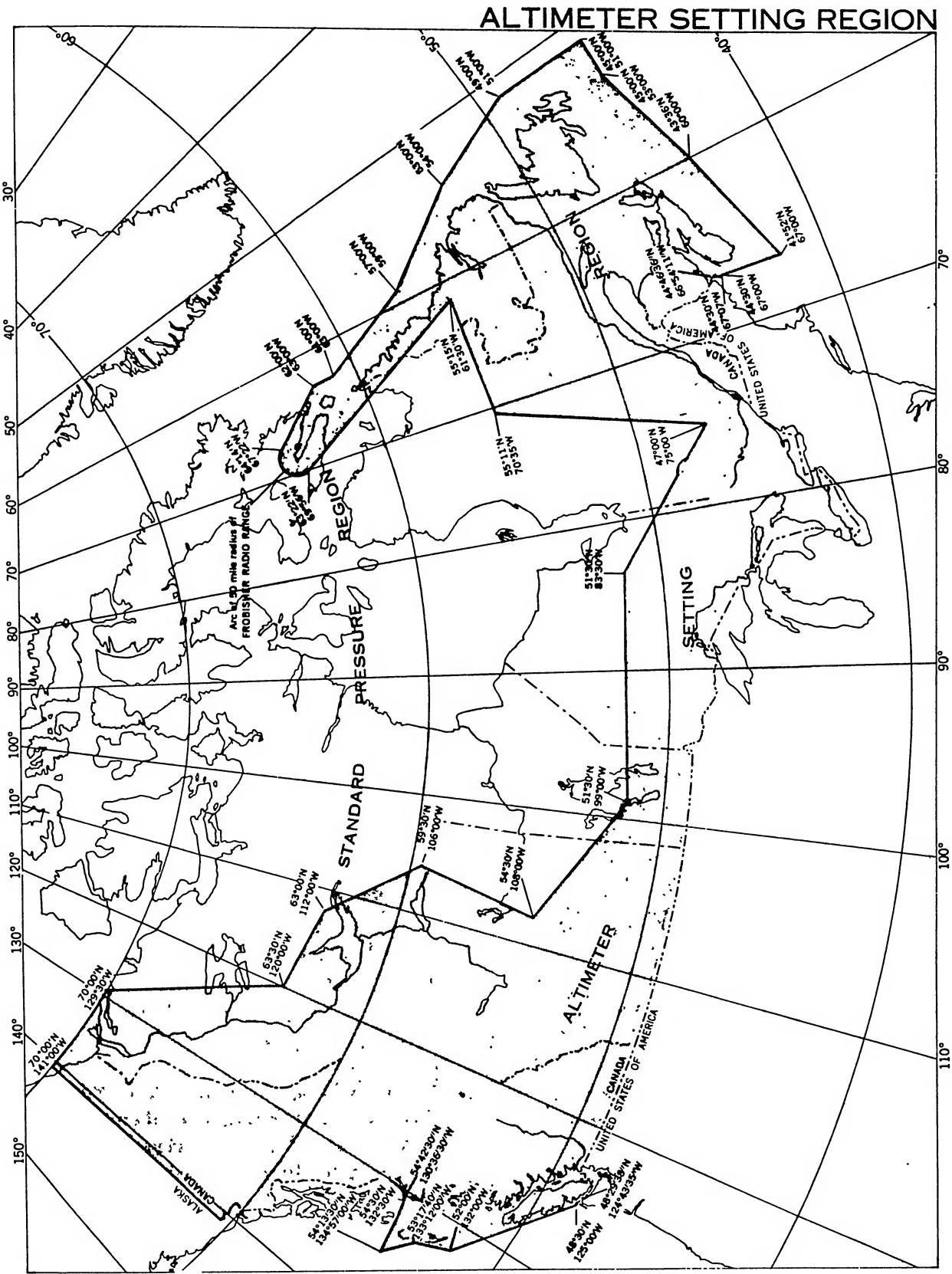
9. The pilot-in-command of an aircraft that has taken off from an aerodrome located within the standard pressure region shall, immediately prior to reaching the flight level at which flight is to be maintained, set the aircraft altimeter to 29.92 inches of mercury or 1013.2 millibars.

10. The pilot-in-command of an aircraft operating within the standard pressure region shall, immediately prior to commencing a descent with the intention of landing at an aerodrome located within the standard pressure region, set the aircraft altimeter to the current altimeter setting of the aerodrome of intended landing if that altimeter setting is obtainable.

11. Notwithstanding section 10, the pilot-in-command of an aircraft who conducts a holding procedure prior to landing at an aerodrome located within the standard pressure region shall not set the aircraft altimeter to the current altimeter setting of the aerodrome of intended landing, until immediately prior to descending below the lowest flight level at which the holding procedure is conducted.

12. Except as otherwise authorized by the appropriate air traffic control unit, the pilot-in-command of an aircraft flying from the standard pressure region into the altimeter setting region, shall set the aircraft altimeter to the appropriate current altimeter setting immediately prior to entry into the altimeter setting region.

NOTE: This Order comes into force at 0001 G. M. T. on July 22, 1965.



**AIR NAVIGATION ORDERS**

**SERIES VII**

**COMMERCIAL AIR SERVICE OPERATIONS**

| <b>NUMBER</b> | <b>TITLE</b>                       | <b>DATE</b>          | <b>SOR<br/>NUMBER</b> |
|---------------|------------------------------------|----------------------|-----------------------|
| <b>No. 1</b>  | <b>Private Aircraft Exemption.</b> | <b>Aug. 11, 1964</b> | <b>64-332</b>         |
|               | <b>AMENDED</b>                     | <b>Feb. 14, 1966</b> | <b>66-112</b>         |

**Amendment No. 13**  
**14/2/66**



AIR NAVIGATION ORDER, SERIES VII, No. 1

ORDER RESPECTING THE EXEMPTION OF PRIVATE AIRCRAFT FROM  
THE AIR REGULATIONS

1. This Order may be cited as the Private Aircraft Exemption  
Order.

2. In this Order,

- (a) "farmer" means a person whose chief source of income is from farming; and
- (b) "farming" includes tillage of the soil, livestock raising, raising of poultry, dairy farming and fruit growing, but does not include an office or employment under a person engaged in the business of farming.

3. A farmer, who is the owner of a private aircraft, is exempt from the provisions of section 700 of the Air Regulations when he uses that aircraft in aerial spraying or dusting for hire or reward, where

- (a) the area to be sprayed or dusted is within a radius of twenty-five miles from the centre of his farm;
- (b) the aircraft has a disposable load not exceeding 1,100 pounds;
- (c) the spray tanks or dust hoppers are affixed to the aircraft in a manner that prevents danger from dust or spray to occupants of the aircraft;
- (d) the farmer, when flying the aircraft, has not less than 150 hours flight time as pilot-in-command, including not less than 25 hours flight time on the type of aircraft being used;
- (e) the aircraft, when flown by a person other than the farmer, is commanded by a pilot who is the holder of a Commercial Pilot Licence;
- (f) no person exceeding the minimum number of flight crew required to perform the spraying or dusting flight is carried on board the aircraft; and
- (g) no spraying or dusting is conducted within a control zone without authority of the appropriate air traffic control unit.

4. The owner of a private aircraft is exempt from the provisions of section 700 of the Air Regulations when he uses that aircraft on his employer's business and is reimbursed therefor on a mileage basis, where

- (a) the owner has received prior approval from the Air Transport Board permitting the acceptance of compensation;

- (b) the aircraft has a maximum authorized take-off weight on wheels not exceeding 18,000 pounds; and
- (c) no person other than the owner and the owner's spouse and dependent children is transported in the aircraft.

5. The owner or operator of a private aircraft, when called upon by the appropriate government authorities to assist in the suppression of a forest fire, is exempt from the provisions of section 700 of the Air Regulations when he uses that aircraft for hire or reward in connection with the suppression of that fire.

6. The owner or operator of a private aircraft is exempt from the provisions of section 700 of the Air Regulations and may accept compensation for fuel and oil used by that aircraft

- (a) while he is participating in Search and Rescue Operations under the direction of the Royal Canadian Air Force; or
- (b) where, during any period that he is enrolled in a Provincial Civil Defence Air Service Organization in accordance with the Federal Guide to the Organization of an Air Service for Civil Defence Purposes, he participates in Civil Defence operations and Emergency Assistance sponsored or approved by the Civil Defence authorities of a province.

7. The holder of a Commercial, Senior Commercial or Airline Transport Pilot Licence issued under Part IV of the Air Regulations is exempt from the provisions of section 700 of the Air Regulations when he uses an aircraft for hire or reward for the sole purpose of familiarizing another licensed pilot therewith so as to enable the other pilot to obtain authority to operate aircraft of that type.

AIR NAVIGATION ORDERS

SERIES VIII

MISCELLANEOUS PROVISIONS

| NUMBER | TITLE                                      | DATE                           | SOR<br>NUMBER    |
|--------|--|--------------------------------|------------------|
| No. 1  | Aircraft Accidents and Missing<br>Aircraft | Oct. 7, 1964                   | 64-433           |
| No. 2  | Aircraft Journey Log<br>AMENDED            | Sept. 10, 1965<br>May 15, 1967 | 65-428<br>67-271 |
| No. 3  | Aircraft Technical Log                     | Sept. 10, 1965                 | 65-429           |

Amendment No. 19  
15/5/67

1

(3)

(1)

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AIR NAVIGATION ORDER, SERIES VIII, NO. 1

AIRCRAFT ACCIDENTS AND MISSING AIRCRAFT

1. This Order may be cited as the Aircraft Accident and Missing Aircraft Order.
2. In this Order,
  - (a) "serious injury" means an injury that requires hospital or medical treatment or results in the suspension of normal activities for a period of five or more days and includes unconsciousness, fracture of any bone except a simple fracture of a finger or a toe, lacerations of muscles or lacerations that cause severe hemorrhages, injury to any internal organs, second or third degree burns and any burn involving more than five per cent of the body surface; and
  - (b) "substantial damage" means damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of an aircraft and that would normally require major repair or replacement of the affected component except that engine failure, damage limited to an engine, bent fairings or cowlings, dented skin, small punctured holes in the skin or fabric, damage to propeller blades, damage to tires, engine accessories, brakes or wing tips are not deemed to be substantial damage.
3. Where the pilot-in-command or operator of an aircraft is required under section 826 of the Air Regulations to report the particulars of an aircraft accident that resulted in death or serious injury or in the aircraft being substantially damaged or destroyed, he shall
  - (a) as soon as possible after the accident and by the quickest means of communication available, report the particulars set out in Schedule "A" to a Regional Director, Air Services, or, if the accident occurred outside Canada, to the Director, Civil Aviation Branch, Department of Transport, Ottawa; and
  - (b) subsequently, within such time as he may be directed, report such additional particulars of the accident as the Regional Director, Air Services, the Director, Civil Aviation Branch or an aircraft accident investigator may direct.
4. Where the owner or operator of an aircraft is required under section 826 of the Air Regulations to give notification of an aircraft missing on a flight, he shall
  - (a) by the quickest means of communication available, report the

particulars set out in Schedule "B" to a Regional Director, Air Services, or, if the flight originated outside Canada, to the Director, Civil Aviation Branch, Department of Transport, Ottawa; and

- (b) subsequently, within such time as he may be directed, report such additional particulars of the missing aircraft as the Regional Director, Air Services or the Director, Civil Aviation Branch, may direct.

**SCHEDULE "A"**

**PARTICULARS TO BE REPORTED RESPECTING AIRCRAFT ACCIDENTS**

- (A) Type, nationality and registration marks of the aircraft.
- (B) Name of the owner, operator and hirer, if any, of the aircraft.
- (C) Name of the pilot-in-command of the aircraft.
- (D) Date and time (standard) of the accident.
- (E) Last point of departure and point of intended landing of the aircraft.
- (F) Position of the aircraft with reference to some easily defined geographical point.
- (G1) Number of crew killed and number of crew seriously injured.
- (G2) Number of passengers killed and number of passengers seriously injured.
- (H) Nature of the accident and the extent of damage to the aircraft, so far as is known, and opinion as to cause of the accident.

SCHEDULE "B"

PARTICULARS TO BE REPORTED RESPECTING MISSING AIRCRAFT

- (A) Type, nationality and registration mark of the aircraft.
- (B) Name of owner, operator and hirer, if any, of the aircraft.
- (C) Name of the pilot-in-command of the aircraft.
- (D) Date and time (standard) of last known take-off of the aircraft.
- (E) Last known position of the aircraft.
- (F) Last point of departure and point of intended landing of the aircraft.
- (G) Names and addresses of flight crew members and passengers aboard the aircraft.
- (H) Action being taken to locate the aircraft.

## AIR NAVIGATION ORDER, SERIES VIII, NO. 2

## AIRCRAFT JOURNEY LOG ORDER

1. This Order may be cited as the Aircraft Journey Log Order.
2. The aircraft journey log required to be maintained pursuant to the Air Regulations shall be the log published by the Queen's Printer under Catalogue Number T52-10, or an aircraft journey log book that has been approved for use by the Director, Civil Aviation.
3. Except as provided in Section 4, the particulars as set out in the Schedule shall be entered in every aircraft journey log.
4. Where
  - (a) two or more flights are made in an aircraft in one day and either
    - (i) the pilot-in-command of the aircraft is the same for each flight, or
    - (ii) in the case of a flying training school a detailed record of each flight is kept in a form approved by a Regional Controller, Civil Aviation;
  - (b) the flights are consecutive flights made during an eight hour period on that day; and
  - (c) the flights are made within twenty-five miles of the first point of departure,the following particulars respecting all of the flights may be entered in the Aircraft Journey Log in lieu of the particulars respecting each flight set out in the Schedule:
  - (d) the date on which the flights take place;
  - (e) the name of the pilot-in-command except in the case referred to in sub paragraph (ii) of paragraph (a);
  - (f) the point of departure and point of final destination of the flights;
  - (g) the time of first departure and time at completion of the last flight;
  - (h) the total number of flights made;
  - (i) the total air time;
  - (j) the total flight time; and
  - (k) the total air time of the aircraft since manufacture.

2

3

4

5

## SCHEDULE

### PARTICULARS TO BE ENTERED IN EVERY AIRCRAFT JOURNEY LOG

#### COLUMN I PARTICULARS TO BE ENTERED IN LOG

#### COLUMN II FREQUENCY OF ENTRY IN LOG

- |    |      |  |                              |
|----|------|--|------------------------------|
| 1. | (1)  | Aircraft nationality and registration marks              | 1. Once at beginning of Log  |
|    | (2)  | Manufacturer's designation                               |                              |
|    | (3)  | Manufacturer's serial number                             |                              |
|    | (4)  | Aircraft type approval or type specification number      |                              |
| 2. | (1)  | Date of each flight                                      | 2. In respect of each flight |
|    | (2)  | Names of flight crew members                             |                              |
|    | (3)  | Point of departure and point of destination              |                              |
|    | (4)  | Time Up  |                              |
|    | (5)  | Time down  |                              |
|    | (6)  | Air Time   |                              |
|    | (7)  | Flight Time  |                              |
|    | (8)  | Total air time since manufacturer                        |                              |
|    | (9)  | Number of persons on board                               |                              |
|    | (10) | Total weight of persons on board                         |                              |
|    | (11) | Number of gallons of fuel and of oil at take-off         |                              |
|    | (12) | Total weight of equipment, baggage and cargo at take-off |                              |
|    | (13) | Total weight of aircraft at take-off                     |                              |

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COLUMN I  
PARTICULARS TO BE  
ENTERED IN LOG

3. Particulars of any defect in any part of the aircraft or its equipment and of the rectification of such defect
4. Condition of aircraft, whether or not airworthy or serviceable
5. Signature of any person making an entry and, in the case of an Aircraft Maintenance Engineer or an employee of an Approved Company, his Aircraft Maintenance Engineer Licence Number or Company Approval Number.

COLUMN II  
FREQUENCY OF ENTRY  
IN LOG

3. Forthwith upon a defect occurring and upon rectification having been made
4. When required by the Airworthiness Certification Order or Flight Permits for Private Aircraft Order
5. Forthwith upon an entry having been made.

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AIR NAVIGATION ORDER, SERIES VIII, NO. 3

AIRCRAFT TECHNICAL LOG ORDER

1. This Order may be cited as the Aircraft Technical Log Order.
2. The Aircraft Technical Log required to be maintained under the Air Regulations shall be made up of the following logs published by the Queen's Printer:
  - (a) one Airframe Log - Catalogue Number T52-2364/1;
  - (b) one Record of Installations and Modifications to Aircraft Log - Catalogue Number T52-2364/2;
  - (c) for each engine installed on the aircraft, one Engine Log - Catalogue Number T52-2364/3;
  - (d) for each propeller, other than a fixed pitch wooden propeller, installed on the aircraft, one Propeller Log - Catalogue Number T52-2364/4; and
  - (e) in the case of a helicopter or gyroplane, one Component Log - Catalogue Number T52-2365/5.
3. The logs referred to in section 2 shall be enclosed in a binder produced by the Queen's Printer under Catalogue Number T52-2364.
4. The particulars set out in Schedules A, B, C, D, and E shall be entered in the logs as set out in those Schedules.

## SCHEDULE "A"

### PARTICULARS TO BE ENTERED IN EVERY AIRFRAME LOG

1. Aircraft nationality and registration marks.
2. Manufacturer's designation.
3. Manufacturer's serial number.
4. Type approval or type specification number.
5. Date of manufacture.
6. Date of each entry made in log.
7. Air time transferred as a daily total from Aircraft Journey Log.
8. Total air time since manufacture.
9. Particulars of all maintenance work carried out on the aircraft.
10. Particulars of any overhauls, repairs, replacements and modifications relating to the aircraft.
11. Particulars of any defects occurring in the aircraft or in any equipment required to be carried therein and of the rectification of such defects.
12. Particulars of any changes in aircraft basic weight.
13. The signature of any person making an entry and, in the case of an Aircraft Maintenance Engineer or an employee of an Approved Company, his Aircraft Maintenance Engineer Licence Number or Company Approval Number.

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## SCHEDULE "B"

### PARTICULARS TO BE ENTERED IN EVERY RECORD OF INSTALLATIONS AND MODIFICATIONS TO AIRCRAFT LOG

1. Aircraft nationality and registration marks.
2. Manufacturer's designation.
3. Date of each entry made in log.
4. Particulars concerning the installation or removal of any engine including the date of installation or removal, the make, model and serial number of the engine and, in the case of a multi-engined aircraft, the numbered position of the engine.
5. Particulars concerning the installation or removal of any propeller including the date of installation or removal, the make, model and serial number of the propeller and, in the case of a multi-engined aircraft, the numbered position of the engine on which the propeller was installed or removed.
6. Particulars concerning all Airworthiness Directives, Service Bulletins, Mandatory Modifications and Special Inspections pertaining to the airframe.
7. The signature of any person making an entry and, in the case of an Aircraft Maintenance Engineer or an employee of an Approved Company, his Aircraft Maintenance Engineer Licence Number or Company Approval Number.

## SCHEDULE "C"

### PARTICULARS TO BE ENTERED IN EVERY ENGINE LOG

1. Engine make.
2. Engine model.
3. Engine specification number.
4. Manufacturer's serial number.
5. Engine reduction gear ratio.
6. Date of manufacture.
7. Date of each entry made in log.
8. Particulars of all maintenance work done on engine.
9. Particulars of any overhauls, repairs, replacements and modifications relating to the engine or any of its accessories.
10. Particulars of any defects occurring in the engine and of the rectification of such defects.
11. Particulars of all Airworthiness Directives, Service Bulletins, Compulsory Modifications and Special Inspection Instructions relating to the engine.
12. Total air time the engine has run since its last overhaul, (to be entered each time any work is performed on the engine).
13. Total air time the engine has run since manufacture.
14. Total air time during which maximum revolutions per minute for the engine were exceeded.
15. Total air time during which the engine was run using an unauthorized grade of fuel or brand of oil.
16. The signature of any person making an entry and, in the case of an Aircraft Maintenance Engineer or an employee of an Approved Company, his Aircraft Maintenance Engineer Licence Number or Company Approval Number.

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## SCHEDULE "D"

### PARTICULARS TO BE ENTERED IN EVERY PROPELLER LOG

1. Propeller make.
2. Propeller model.
3. Propeller specification number.
4. Date of Manufacture.
5. Hub serial number.
6. Design and serial numbers of propeller blades.
7. Pitch setting of propeller blades.
8. Date of each entry made in log.
9. Particulars of all maintenance work done on the propeller.
10. Particulars of any overhauls, repairs, replacements and modifications relating to the propeller.
11. Particulars of any defects occurring in the propeller and of the rectification of such defects.
12. Total air time the propeller has run since its last overhaul.
13. Particulars of all Airworthiness Directives, Service Bulletins, Compulsory Modifications and Special Inspection Instructions relating to the propeller.
14. The signature of any person making an entry and, in the case of an Aircraft Maintenance Engineer or an employee of an Approved Company, his Aircraft Maintenance Engineer Licence Number or Company Approval Number.

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## SCHEDULE "E"

### PARTICULARS TO BE ENTERED IN EVERY COMPONENT LOG

1. The Component Log shall be made up of a Component History Form and a Component Replacement Record.
2. The following particulars shall be entered in the Component History Form one of which shall be kept for each component that may only remain in service for a limited period of time:
  - (a) a description of the component including the type, part number and serial number, the number of hours the component may remain in service prior to overhaul and the total number of hours the component may remain in service;
  - (b) particulars concerning the installation of the component on the aircraft, including the aircraft type and registration mark, the position installed on the aircraft, the date of installation and the air time of the aircraft at installation;
  - (c) particulars concerning the removal of the component from the aircraft including the date of removal, the number of hours the aircraft has flown since the component was installed, the total number of hours the component has been used since manufacture and the reason for its removal; and
  - (d) particulars concerning any overhauls, repairs, adjustments and modifications made to the component and particulars of all Mandatory Service Bulletins.
3. The following particulars respecting each component that may only remain in service for a limited period of time shall be entered in the Component Replacement Record
  - (a) a description of the component including the serial number and the remaining number of hours the component may remain in service;
  - (b) the type and registration number of the aircraft on which the component is installed; and
  - (c) the date and number of hours the aircraft has flown at installation of the component;
  - (d) the date and time the component is to be replaced; and
  - (e) the number of hours the aircraft has flown at the time the component is removed.

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